GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 09:15:42 ; Search time 11 Seconds
(without alignments)
13.029 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 102317 seqs, 15924203 residues

Total number of hits satisfying chosen parameters: 21

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 250 summaries

Database : Published_Applications_AA:*
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3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
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10: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
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12: /cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	9	US-09-840-277-38	Sequence 38, Appl
2	65	100.0	9	9	US-09-840-277-62	Sequence 62, Appl
3	65	100.0	9	9	US-10-080-854-8	Sequence 8, Appli
4	65	100.0	9	10	US-09-765-086-1	Sequence 1, Appli
5	65	100.0	9	10	US-09-845-160-5	Sequence 5, Appli
6	65	100.0	9	10	US-09-245-603A-16	Sequence 16, Appl
7	65	100.0	9	10	US-09-364-597A-16	Sequence 16, Appl
8	65	100.0	9	10	US-09-734-628-1	Sequence 1, Appli
9	65	100.0	9	10	US-09-971-798-5	Sequence 5, Appli
10	65	100.0	9	10	US-09-969-192-3	Sequence 3, Appli
11	65	100.0	10	10	US-09-845-160-14	Sequence 14, Appl
12	65	100.0	10	10	US-09-870-203A-43	Sequence 43, Appl
13	65	100.0	11	10	US-09-765-086-16	Sequence 16, Appl
14	65	100.0	11	10	US-09-364-597A-10	Sequence 10, Appl
15	65	100.0	12	10	US-09-969-192-79	Sequence 79, Appl
16	65	100.0	13	9	US-09-949-474-16	Sequence 16, Appl
17	65	100.0	13	9	US-09-949-474-17	Sequence 17, Appl
18	65	100.0	14	10	US-09-969-192-68	Sequence 68, Appl
19	65	100.0	15	10	US-09-969-192-31	Sequence 31, Appl
20	65	100.0	24	10	US-09-969-192-49	Sequence 49, Appl
21	65	100.0	323	10	US-09-971-798-31	Sequence 31, Appl

ALIGNMENTS

RESULT 1
US-09-840-277-38
; Sequence 38, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
; APPLICANT: FEIGE, ULRICH
; APPLICANT: KOHNO, TADAHIKO
; APPLICANT: LACEY, DAVID LEE
; APPLICANT: BOONE, THOMAS CHARLES
; TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
; FILE REFERENCE: A-688A
; CURRENT APPLICATION NUMBER: US/09/840,277
; CURRENT FILING DATE: 2001-08-14
; PRIOR APPLICATION NUMBER: 60/198,919
; PRIOR FILING DATE: 2000-04-21
; PRIOR APPLICATION NUMBER: 60/201,394
; PRIOR FILING DATE: 2000-05-03
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 38
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Integrin antagonist peptide
US-09-840-277-38

Query Match 100.0%; Score 65; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 2
US-09-840-277-62
; Sequence 62, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
; APPLICANT: FEIGE, ULRICH
; APPLICANT: KOHNO, TADAHIKO
; APPLICANT: LACEY, DAVID LEE
; APPLICANT: BOONE, THOMAS CHARLES
; TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
; FILE REFERENCE: A-688A
; CURRENT APPLICATION NUMBER: US/09/840,277
; CURRENT FILING DATE: 2001-08-14
; PRIOR APPLICATION NUMBER: 60/198,919
; PRIOR FILING DATE: 2000-04-21
; PRIOR APPLICATION NUMBER: 60/201,394
; PRIOR FILING DATE: 2000-05-03
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 62
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Integrin antagonist peptide
US-09-840-277-62

Query Match 100.0%; Score 65; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 3
US-10-080-854-8
; Sequence 8, Application US/10080854
; Patent No. US20020172940A1
; GENERAL INFORMATION:
;  APPLICANT: GYURIS, JENO
;  APPLICANT:  MORRIS, AARON J.
;  TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  PEPTIDES
;  FILE REFERENCE: MIV-106.01
;  CURRENT APPLICATION NUMBER: US/10/080,854
;  CURRENT FILING DATE:  2002-02-22
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RGD motif
US-10-080-854-8

  Query Match           100.0%;  Score 65;  DB 9;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 4
US-09-765-086-1
; Sequence 1, Application US/09765086
; Patent No. US20010046498A1
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT:  Pasqualini, Renata
;  APPLICANT:  Wadih, Arap
;  APPLICANT:  Bredesen, Dale E.
;  APPLICANT:  Ellerby, H. Michael
;  TITLE OF INVENTION: Chimeric Prostate-Homing Peptides With
;  TITLE OF INVENTION:  Pro-Apoptotic Activity
;  FILE REFERENCE: P-LJ 3844
;  CURRENT APPLICATION NUMBER: US/09/765,086
;  CURRENT FILING DATE:  2001-01-17
;  PRIOR APPLICATION NUMBER: US 09/489,582
;  PRIOR FILING DATE: 2000-01-21
;  NUMBER OF SEQ ID NOS: 235
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic peptide
US-09-765-086-1

  Query Match           100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 5
US-09-845-160-5
; Sequence 5, Application US/09845160
; Patent No. US20020058045A1
; GENERAL INFORMATION:
;  APPLICANT: MIZUGUCHI, HIROYUKI
;  APPLICANT:  HAYAKAWA, TAKAO
;  TITLE OF INVENTION: ADENOVIRUS VECTOR
;  FILE REFERENCE: 081356/0163
;  CURRENT APPLICATION NUMBER: US/09/845,160
;  CURRENT FILING DATE:  2001-05-01
;  PRIOR APPLICATION NUMBER: JP 2001-131688
;  PRIOR FILING DATE: 2001-04-27
;  PRIOR APPLICATION NUMBER: JP 2000-161577
;  PRIOR FILING DATE: 2000-05-31
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RGD-4C peptide.
US-09-845-160-5

  Query Match           100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 6
US-09-245-603A-16
; Sequence 16, Application US/09245603A
; Patent No. US20020081280A1
; GENERAL INFORMATION:
;  APPLICANT:  Curiel, David T.
;  APPLICANT:  Krasnykh, Victor N.
;  APPLICANT:  Dmitriev, Igor
;  TITLE OF INVENTION:  Adenovirus Vector Containing A Heterologous Peptide
;  TITLE OF INVENTION:  Epitope in the HI Loop of the Fiber Knob
;  FILE REFERENCE:  D6080
;  CURRENT APPLICATION NUMBER: US/09/245,603A
;  CURRENT FILING DATE:  1999-02-05
;  PRIOR APPLICATION NUMBER:  US 60/099,801
;  PRIOR FILING DATE:  1998-09-10
;  NUMBER OF SEQ ID NOS:  17
; SEQ ID NO 16
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: artificial sequence
;   FEATURE:
;   OTHER INFORMATION: Amino acid sequence of a RGD peptide incorporated
;   OTHER INFORMATION: into the region of the fiber gene within the HI loop.
US-09-245-603A-16

  Query Match           100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 7
US-09-364-597A-16
; Sequence 16, Application US/09364597A
; Patent No. US20020103130A1
;  GENERAL INFORMATION:
```

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;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. US20020103130A1el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell & Flores LLP
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/364,597A
;      FILING DATE:  30-JUL-1999
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/286,861
;      FILING DATE:  04-AUG-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 3419
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (858) 535-9001
;      TELEFAX:  (858) 535-8949
;  INFORMATION FOR SEQ ID NO:  16:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-09-364-597A-16

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 8
US-09-734-628-1
; Sequence 1, Application US/09734628
; Patent No. US20020122806A1
; GENERAL INFORMATION:
;  APPLICANT: Chinnaiyan, Arul M.
;  APPLICANT:  Rehemtulla, Alnawaz
;  APPLICANT:  Ross, Brian D.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IN SITU AND
;  TITLE OF INVENTION:  IN VIVO IMAGING OF CELLS AND TISSUES
;  FILE REFERENCE: 11203-005001
;  CURRENT APPLICATION NUMBER: US/09/734,628
;  CURRENT FILING DATE:  2000-12-11
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetically generated peptide
US-09-734-628-1

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 9
US-09-971-798-5
; Sequence 5, Application US/09971798
; Patent No. US20020132769A1
; GENERAL INFORMATION:
;  APPLICANT: No. US20020132769A1artis AG
;  TITLE OF INVENTION: Targeting molecules
;  FILE REFERENCE: 4-31615/GTI
;  CURRENT APPLICATION NUMBER: US/09/971,798
;  CURRENT FILING DATE:  2001-10-05
;  NUMBER OF SEQ ID NOS: 31
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-971-798-5

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 10
US-09-969-192-3
; Sequence 3, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/969,192
;             FILING DATE: 01-Oct-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 9-455061
;             FILING DATE: 06-DEC-1999
;             APPLICATION NUMBER: US 9-130225
;             FILING DATE: 06-AUG-1998
;             APPLICATION NUMBER: US 8-701124
;             FILING DATE: 21-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Hefner, M. Daniel
;             REGISTRATION NUMBER: 41,826
;             REFERENCE/DOCKET NUMBER: 213564
;   INFORMATION FOR SEQ ID NO: 3:
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;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 9 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: peptide
;       SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-969-192-3

  Query Match            100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 11
US-09-845-160-14
; Sequence 14, Application US/09845160
; Patent No. US20020058045A1
; GENERAL INFORMATION:
;  APPLICANT: MIZUGUCHI, HIROYUKI
;  APPLICANT:  HAYAKAWA, TAKAO
;  TITLE OF INVENTION: ADENOVIRUS VECTOR
;  FILE REFERENCE: 081356/0163
;  CURRENT APPLICATION NUMBER: US/09/845,160
;  CURRENT FILING DATE:  2001-05-01
;  PRIOR APPLICATION NUMBER: JP 2001-131688
;  PRIOR FILING DATE: 2001-04-27
;  PRIOR APPLICATION NUMBER: JP 2000-161577
;  PRIOR FILING DATE: 2000-05-31
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide
US-09-845-160-14

  Query Match            100.0%;  Score 65;  DB 10;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 0.0037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

      1 CDCRGDCFC 9
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      2 CDCRGDCFC 10


RESULT 12
US-09-870-203A-43
; Sequence 43, Application US/09870203A
; Patent No. US20020137213A1
; GENERAL INFORMATION:
;  APPLICANT: No. US20020137213A1artis AG
;  TITLE OF INVENTION: Adenovirus particles with mutagenized fiber proteins
;  FILE REFERENCE: 4-31452A
;  CURRENT APPLICATION NUMBER: US/09/870,203A
;  CURRENT FILING DATE:  2001-05-30
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 43
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: cRGD consensus sequence
US-09-870-203A-43

  Query Match            100.0%;  Score 65;  DB 10;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 0.0037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 13
US-09-765-086-16
; Sequence 16, Application US/09765086
; Patent No. US20010046498A1
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT:  Pasqualini, Renata
;  APPLICANT:  Wadih, Arap
;  APPLICANT:  Bredesen, Dale E.
;  APPLICANT:  Ellerby, H. Michael
;  TITLE OF INVENTION: Chimeric Prostate-Homing Peptides With
;  TITLE OF INVENTION:  Pro-Apoptotic Activity
;  FILE REFERENCE: P-LJ 3844
;  CURRENT APPLICATION NUMBER: US/09/765,086
;  CURRENT FILING DATE:  2001-01-17
;  PRIOR APPLICATION NUMBER: US 09/489,582
;  PRIOR FILING DATE: 2000-01-21
;  NUMBER OF SEQ ID NOS: 235
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 16
;   LENGTH: 11
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic peptide
US-09-765-086-16

  Query Match            100.0%;  Score 65;  DB 10;  Length 11;
  Best Local Similarity  100.0%;  Pred. No. 0.004;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 14
US-09-364-597A-10
; Sequence 10, Application US/09364597A
; Patent No. US20020103130A1
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. US20020103130A1el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell & Flores LLP
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/364,597A
;      FILING DATE:  30-JUL-1999
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    PRIOR APPLICATION DATA:
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;      APPLICATION NUMBER:  US 08/286,861
;      FILING DATE:  04-AUG-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 3419
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (858) 535-9001
;      TELEFAX:  (858) 535-8949
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-09-364-597A-10

  Query Match             100.0%;  Score 65;  DB 10;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.004;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 15
US-09-969-192-79
; Sequence 79, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/969,192
;             FILING DATE: 01-Oct-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 9-455061
;             FILING DATE: 06-DEC-1999
;             APPLICATION NUMBER: US 9-130225
;             FILING DATE: 06-AUG-1998
;             APPLICATION NUMBER: US 8-701124
;             FILING DATE: 21-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Hefner, M. Daniel
;             REGISTRATION NUMBER: 41,826
;             REFERENCE/DOCKET NUMBER: 213564
;   INFORMATION FOR SEQ ID NO: 79:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 12 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 79:
US-09-969-192-79

  Query Match             100.0%;  Score 65;  DB 10;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 0.0042;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 16
US-09-949-474-16
; Sequence 16, Application US/09949474
; Patent No. US20020156235A1
; GENERAL INFORMATION:
;  APPLICANT: Guzaev, Andrei P.
;  APPLICANT:  Manoharan, Muthiah
;  TITLE OF INVENTION: Process for Preparing Peptide Derivatized Oligomeric Compounds
;  FILE REFERENCE: ISIS4850
;  CURRENT APPLICATION NUMBER: US/09/949,474
;  CURRENT FILING DATE:  2001-09-07
;  PRIOR APPLICATION NUMBER: 09/658,517
;  PRIOR FILING DATE: 2000-09-08
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: No. US20020156235A1el Sequence
US-09-949-474-16

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  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12


RESULT 17
US-09-949-474-17
; Sequence 17, Application US/09949474
; Patent No. US20020156235A1
; GENERAL INFORMATION:
;  APPLICANT: Guzaev, Andrei P.
;  APPLICANT:  Manoharan, Muthiah
;  TITLE OF INVENTION: Process for Preparing Peptide Derivatized Oligomeric Compounds
;  FILE REFERENCE: ISIS4850
;  CURRENT APPLICATION NUMBER: US/09/949,474
;  CURRENT FILING DATE:  2001-09-07
;  PRIOR APPLICATION NUMBER: 09/658,517
;  PRIOR FILING DATE: 2000-09-08
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
;   LENGTH: 13
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: No. US20020156235A1el Sequence
;   NAME/KEY: misc_feature
;   LOCATION: (4)..(5)
;   OTHER INFORMATION: Cysteines are crosslinked
;   NAME/KEY: misc_feature
;   LOCATION: (6)..(7)
;   OTHER INFORMATION: Cysteines are crosslinked
;   NAME/KEY: misc_feature
;   LOCATION: (10)..(11)
;   OTHER INFORMATION: Cysteines are crosslinked
;   NAME/KEY: misc_feature
;   LOCATION: (12)..(13)
;   OTHER INFORMATION: Cysteines are crosslinked
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US-09-949-474-17

  Query Match             100.0%;  Score 65;  DB 9;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12


RESULT 18
US-09-969-192-68
; Sequence 68, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/969,192
;             FILING DATE: 01-Oct-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 9-455061
;             FILING DATE: 06-DEC-1999
;             APPLICATION NUMBER: US 9-130225
;             FILING DATE: 06-AUG-1998
;             APPLICATION NUMBER: US 8-701124
;             FILING DATE: 21-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Hefner, M. Daniel
;             REGISTRATION NUMBER: 41,826
;             REFERENCE/DOCKET NUMBER: 213564
;   INFORMATION FOR SEQ ID NO: 68:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 14 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 68:
US-09-969-192-68

  Query Match             100.0%;  Score 65;  DB 10;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 19
US-09-969-192-31
; Sequence 31, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/969,192
;             FILING DATE: 01-Oct-2001
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 9-455061
;             FILING DATE: 06-DEC-1999
;             APPLICATION NUMBER: US 9-130225
;             FILING DATE: 06-AUG-1998
;             APPLICATION NUMBER: US 8-701124
;             FILING DATE: 21-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Hefner, M. Daniel
;             REGISTRATION NUMBER: 41,826
;             REFERENCE/DOCKET NUMBER: 213564
;   INFORMATION FOR SEQ ID NO: 31:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 15 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 31:
US-09-969-192-31

  Query Match             100.0%;  Score 65;  DB 10;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0.005;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12


RESULT 20
US-09-969-192-49
; Sequence 49, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
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; APPLICATION NUMBER: US/09/969,192
; FILING DATE: 01-Oct-2001
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 9-455061
; FILING DATE: 06-DEC-1999
; APPLICATION NUMBER: US 9-130225
; FILING DATE: 06-AUG-1998
; APPLICATION NUMBER: US 8-701124
; FILING DATE: 21-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Hefner, M. Daniel
; REGISTRATION NUMBER: 41,826
; REFERENCE/DOCKET NUMBER: 213564
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 24 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; SEQUENCE DESCRIPTION: SEQ ID NO: 49:
US-09-969-192-49

Query Match 100.0%; Score 65; DB 10; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.007;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 15 CDCRGDCFC 23

RESULT 21
US-09-971-798-31
; Sequence 31, Application US/09971798
; Patent No. US20020132769A1
; GENERAL INFORMATION:
; APPLICANT: No. US20020132769A1artis AG
; TITLE OF INVENTION: Targeting molecules
; FILE REFERENCE: 4-31615/GTI
; CURRENT APPLICATION NUMBER: US/09/971,798
; CURRENT FILING DATE: 2001-10-05
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 31
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Fusion protein comprising a sCAR, linker, trimerization domain ar
; OTHER INFORMATION: d a RGD ligand
US-09-971-798-31

Query Match 100.0%; Score 65; DB 10; Length 323;
Best Local Similarity 100.0%; Pred. No. 0.047;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 306 CDCRGDCFC 314

Search completed: December 3, 2002, 09:17:03
Job time : 11 secs

GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 09:15:42 ; Search time 35 Seconds
(without alignments)
34.264 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 72

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 250 summaries

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18: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
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22: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	16	AAR76200	Alphav/beta3 and a
2	65	100.0	9	19	AAW60289	Tumour homing pept
3	65	100.0	9	19	AAW56034	Chimeric adenoviru
4	65	100.0	9	20	AAY43233	RGD-containing pep
5	65	100.0	9	20	AAY48821	Membrane dipeptida
6	65	100.0	9	20	AAY42255	Synthetic RGD-4C p
7	65	100.0	9	20	AAW93626	NGR receptor bindi
8	65	100.0	9	21	AAB21701	Human breast tumou
9	65	100.0	9	21	AAB17346	Integrin-binding p
10	65	100.0	9	21	AAB17928	TPO-mimetic peptid
11	65	100.0	9	21	AAB17964	Integrin-binding p
12	65	100.0	9	21	AAY90211	Alphav integrin ta
13	65	100.0	9	21	AAY44970	RGD-4C targeting s
14	65	100.0	9	21	AAY54271	Alpha Vbeta-3 bind
15	65	100.0	9	22	AAE11044	RGD-containing pep
16	65	100.0	9	22	AAE06279	Tumour homing pept
17	65	100.0	9	22	AAB97086	Integrin-binding p
18	65	100.0	9	22	AAB20271	Peptide that speci
19	65	100.0	9	22	AAB50242	Enhanced infectivi
20	65	100.0	9	23	ABB79525	RGD motif-containi
21	65	100.0	9	23	AAU98837	Tumour homing pept
22	65	100.0	9	23	ABB76442	RGD-4C Peptide wit
23	65	100.0	9	23	ABB08066	Cyclic RGD (cRGD)
24	65	100.0	9	23	ABG35079	RGD-4C-beta gal ph
25	65	100.0	9	23	AAU79138	Synthetic peptide
26	65	100.0	9	23	AAE17983	Human ligand #3 at
27	65	100.0	9	23	AAG78427	Cyclic peptide tha
28	65	100.0	9	23	AAU75609	Synthetic peptide
29	65	100.0	9	23	AAM48795	Tumour-targetting
30	65	100.0	9	23	AAU81110	Integrin-antagonis
31	65	100.0	9	23	AAU81134	Integrin-antagonis
32	65	100.0	9	23	ABB72945	Integrin binding p
33	65	100.0	9	23	ABB72961	Integrin binding p
34	65	100.0	9	23	AAM51995	Drug targeting pep
35	65	100.0	10	21	AAB21716	Human tumour-homin
36	65	100.0	10	22	AAE08561	RGD-4C peptide mot
37	65	100.0	10	23	ABB76444	RGD-4C Peptide wit
38	65	100.0	10	23	ABB08397	cyclic RGD consens
39	65	100.0	10	23	AAU74979	Transfection assoc
40	65	100.0	10	23	AAE17110	Cyclic integrin-bi
41	65	100.0	11	16	AAR76194	Integrin binding p
42	65	100.0	11	18	AAW11184	Free peptide. Syn
43	65	100.0	11	19	AAW60299	Tumour homing pept
44	65	100.0	11	19	AAW57199	RGD-containing pep
45	65	100.0	11	21	AAY58860	Membrane binding e
46	65	100.0	11	21	AAY54273	Peptide inhibiting
47	65	100.0	11	22	AAE06294	Double cyclic homi
48	65	100.0	11	23	AAO21743	Procytotoxin targe
49	65	100.0	11	23	AAU97577	Synthetic peptide
50	65	100.0	11	23	AAU87024	Targetting ligand
51	65	100.0	12	19	AAW56052	Chimeric adenoviru
52	65	100.0	12	20	AAW95410	Integrin-binding p
53	65	100.0	12	23	AAE17099	Cyclic integrin-bi
54	65	100.0	13	21	AAY90158	UPAR targeting seq
55	65	100.0	13	23	AAU98801	Peptide linked oli
56	65	100.0	13	23	AAU98802	Peptide linked oli
57	65	100.0	14	18	AAW19833	RGD peptide motif.
58	65	100.0	14	19	AAW56051	Chimeric adenoviru
59	65	100.0	15	19	AAW56040	Chimeric adenoviru
60	65	100.0	15	20	AAY43228	RGD-containing pep
61	65	100.0	15	21	AAY90167	UPAR targeting seq
62	65	100.0	15	21	AAY54272	Peptide inserted b
63	65	100.0	21	20	AAW96218	AlphavBeta3 integr
64	65	100.0	23	20	AAW96220	Modified Gene 10 3
65	65	100.0	24	19	AAW56044	Chimeric adenoviru
66	65	100.0	25	21	AAB21940	Homing antimicrobi
67	65	100.0	25	22	AAE06517	Homing pro-apoptot
68	65	100.0	26	21	AAB21937	Homing antimicrobi
69	65	100.0	26	22	AAE06516	Homing pro-apoptot
70	65	100.0	28	23	AAU74973	Alpha V integrin b
71	65	100.0	28	23	AAE17123	Integrin-targettin
72	65	100.0	277	20	AAW82730	Adenovirus SCAR.RG

ALIGNMENTS

RESULT 1
AAR76200
ID AAR76200 standard; peptide; 9 AA.
XX
AC AAR76200;
XX

DT 24-JAN-1996 (first entry)
XX
DE Alphav/beta3 and alphav/beta5 integrin binding peptide #4.
XX
KW High affinity; integrin binding peptide; alpha5/beta1; alphav/beta5;
KW alphav/beta3; RGD; stable configuration; wound healing;
KW osteoclast attachemnt; bone; angiogenesis; metastasis; tumour;
KW smooth muscle cell migration.
XX
OS Synthetic.
XX
PN WO9514714-A1.
XX
PD 01-JUN-1995.
XX
PF 22-NOV-1994; 94WO-US13542.
XX
PR 04-AUG-1994; 94US-0286861.
PR 24-NOV-1993; 93US-0158001.
XX
PA (LJOL-) LA JOLLA CANCER RES FOUND.
XX
PI Koivunen E, Ruoslahti E;
XX
DR WPI; 1995-206899/27.
XX
PT High affinity integrin binding peptides - can be used to attach
PT cells to a substrate, inhibit the attachment of osteoclasts to bone,
PT promote wound healing, inhibit angiogenesis, metastasis of tumours
PT and migration of smooth muscle cells
XX
PS Claim 21; Page 62; 86pp; English.
XX
CC The sequences given in AAR76185-200 and AAR79073-94 are high affinity
CC integrin binding peptides which bind to various integrins. Peptides
CC which bind to alpha5/beta1 integrins contain the motifs given in
CC AAR76185-86 and peptides which bind to alphav/beta5 and alphav/beta3
CC integrins contain the motif given in AAR76187. Alphav/beta5 integrins
CC are also bound by RGD containing peptides. These peptides assume a
CC conformationally stabilised configuration which is due to the
CC formation of a disulphide bond, a peptide bond or a lactam bond.
CC These peptides may be used for isolating the complementary integrin
CC from a sample mixture by contacting them under ionic conditions to
CC allow binding of the integrin to the peptide and then separating the
CC integrin from the peptide. They can be used for attaching cells to
CC a substrate, by binding them to the substrate with the cell. The
CC peptides promote wound healing when applied locally and inhibit the
CC attachment of osteoclasts to bone. They inhibit angiogenesis,
CC metastasis of tumours and migration of smooth muscle cells.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 16; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 2
AAW60289
ID AAW60289 standard; peptide; 9 AA.
XX
AC AAW60289;
XX
DT 24-AUG-1998 (first entry)
XX
DE Tumour homing peptide of the invention.
XX
KW Tumour homing peptide; in vivo panning;
KW alpha-V containing integrin binding motif; tumour.
XX
OS Unidentified.
XX
PN WO9810795-A2.
XX
PD 19-MAR-1998.
XX
PF 10-SEP-1997; 97WO-US16086.
XX
PR 10-SEP-1996; 96US-0710067.
XX
PA (BURN-) BURNHAM INST.
XX
PI Pasqualini R, Ruoslahti E;
XX
DR WPI; 1998-207151/18.
XX
PT Tumour homing molecules and their conjugates - useful for, e g.
PT directing linked moiety to tumour containing angiogenic vasculature
XX
PS Claim 6; Page 91; 105pp; English.
XX
CC The present peptide represents a tumour homing peptide, and is produced
CC by in vivo panning. The peptide has an alpha-V-containing integrin
CC binding motif, Arg-Gly-Asp (RGD). The in vivo panning comprises
CC administering a library of diverse peptides to a subject having a
CC tumour, collecting a sample of the tumour, identifying a peptide that
CC homes to the tumour, collecting a sample of normal tissue corresponding
CC to the tumour, and determining that the peptide that homes to the
CC tumour is not present in the normal tissue. The tumour homing peptide can
CC be linked to a moiety (e.g. doxorubicin), and used to direct the
CC moiety to a tumour.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 19; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 3
AAW56034
ID AAW56034 standard; peptide; 9 AA.
XX
AC AAW56034;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 3.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;
KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX

```
DR   WPI; 1998-169169/15.
XX
PT   Chimeric adenovirus fibre proteins - containing non-native amino
PT   acid sequence to provide for binding and entry into cells,
PT   especially for gene therapy
XX
PS   Claim 7; Page 68; 124pp; English.
XX
CC   The present sequence represents a specifically claimed non-native amino
CC   acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC   present invention. The non-native amino acid sequence allows the
CC   chimeric fibre (or a vector comprising the chimeric fibre) to more
CC   efficiently bind to and enter cells. The products can be used for gene
CC   therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC   well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC   muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC   tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC   restenosis following angioplasty or to promote angiogenesis to reperfuse
CC   necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC   colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 19;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 4
AAY43233
ID   AAY43233 standard; peptide; 9 AA.
XX
AC   AAY43233;
XX
DT   13-JAN-2000  (first entry)
XX
DE   RGD-containing peptide #12.
XX
KW   Nucleic acid delivery vehicle; bifunctional complex; transgene; CFTR;
KW   cell surface targeting; cell surface molecule binding region; integrin;
KW   cystic fibrosis transmembrane regulator; alpha1-antitrypsin;
KW   suicide gene; beta-glucocerebrosidase; cell transfection; cell infection;
KW   RGD peptide.
XX
OS   Synthetic.
XX
PN   WO9940214-A2.
XX
PD   12-AUG-1999.
XX
PF   08-FEB-1999;   99WO-US02680.
XX
PR   09-FEB-1998;   98US-0020483.
PR   06-NOV-1998;   98US-0107471.
XX
PA   (GENZ ) GENZYME CORP.
XX
PI   O'riordan C,  Romanczuk H,  Wadsworth SC;
XX
DR   WPI; 1999-610583/52.
XX
PT   Nucleic acid delivery vehicles useful for transfecting and infecting a
PT   target cell  -
XX
PS   Claim 22; Page 39; 118pp; English.
XX
CC   This sequence represents a RGD-containing peptide that can be used in a
CC   bifunctional complex used in the nucleic acid delivery vehicle (I) of the
CC   invention. (I) is for transfecting and/or infecting a target cell, and
CC   comprises a transgene and a bifunctional complex (B) that targets the
CC   nucleic acid delivery vehicle to the cell surface. (B) comprises a
CC   delivery vehicle binding portion, a cell surface molecule binding portion
CC   (such as this sequence) and a linker connecting them. The delivery
CC   vehicle can be specifically targeted to the cell via the binding to cell
CC   surface molecules. (I) can be used to target cells, which express
CC   integrins such as, HT-29 colon carcinoma cells, lymphocytes and
CC   monocytes, blood platelets, SMC-90 human lung fibroblast, MG(63)
CC   osteosarcoma cell line, vascular endothelial cells and melanoma cells.
CC   (I) is useful for delivery of nucleic acids encoding CFTR (cystic
CC   fibrosis transmembrane regulator), alpha1-antitrypsin,
CC   beta-glucocerebrosidase and suicide genes. The construct increases the
CC   efficiency of cellular uptake of (I). The constructs also enable the
CC   transfection/infection of cells that are normally refractory to
CC   transfection/infection by targeting cell receptors that are present on
CC   such cells.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 20;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 5
AAY48821
ID   AAY48821 standard; Peptide; 9 AA.
XX
AC   AAY48821;
XX
DT   10-DEC-1999  (first entry)
XX
DE   Membrane dipeptidase-binding retina homing peptide #7.
XX
KW   Homing peptide; organ; tissue; lung; pancreas; skin; retina; MDP;
KW   prostate; ovary; lymph node; adrenal gland; liver; gut; tumour;
KW   membrane dipeptidase.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9946284-A2.
XX
PD   16-SEP-1999.
XX
PF   10-MAR-1999;   99WO-US05284.
XX
PR   13-MAR-1998;   98US-0042107.
PR   26-FEB-1999;   99US-0042107.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Rajotte D,  Pasqualini R,  Ruoslahti EI;
XX
DR   WPI; 1999-571717/48.
XX
PT   New peptides which selectively home to organs or tissues, used for,
PT   e.g. identifying target ligands and for therapy of pathological
PT   conditions  -
XX
PS   Example 6; Page 149; 193pp; English.
XX
CC   The present invention describes peptides that selectively home to a
CC   tissue or organ. The peptides can be used for identifying an organ
CC   or tissue, for identifying a target molecule expressed by an organ or
CC   tissue or for treating an organ or tissue pathology, where the organ or
CC   tissue is selected from prostate, lung, skin, retina, pancreas, gut,
CC   ovary, adrenal gland, liver, and lymph node. The peptide bind to the
CC   membrane dipeptidase (MDP). AAY48618 to AAY49066 represent sequences
```

CC which are used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 6
AAY42255
ID AAY42255 standard; peptide; 9 AA.
XX
AC AAY42255;
XX
DT 01-DEC-1999 (first entry)
XX
DE Synthetic RGD-4C peptide.
XX
KW Adenovirus; gene therapy; coxsackievirus adenovirus receptor;
KW CAR; cancer; cystic fibrosis; muscular dystrophy.
XX
OS Synthetic.
XX
PN WO9939734-A1.
XX
PD 12-AUG-1999.
XX
PF 05-FEB-1999; 99WO-US02549.
XX
PR 06-FEB-1998; 98US-0073947.
PR 10-SEP-1998; 98US-0099801.
XX
PA (UABR-) UAB RES FOUND.
XX
PI Curiel DT, Krasnykh VN, Dmitriev I;
XX
DR WPI; 1999-539951/45.
XX
PT Recombinant adenovirus vectors with modified fiber knob loops, useful
PT in gene therapy -
XX
PS Example 21; Page 49; 126pp; English.
XX
CC This sequence represents a synthetic RGD-4C peptide. DNA encoding
CC this sequence was cloned into the sequence encoding the HI loop of the
CC adenovirus fibre protein knob domain. This was then used in the
CC construction of plasmids encoding a modified fibre protein. Recombinant
CC adenovirus genomes were generated by homologous DNA recombination in E.
CC coli, before excision of the newly generated genome for virus rescue.
CC The knob domain of the adenovirus fibre protein mediates the initial
CC binding and recognition of the coxsackievirus and adenovirus receptor
CC (CAR) on the cell surface. The HI loop protrudes from the knob domain
CC and connects beta-strands involved in the formation of the cell binding
CC site. Recombinant adenovirus vectors are used in a number of gene
CC therapy applications; however, the reliance on the CAR means that
CC in certain situations, recombinant virions are sequestered by high
CC CAR-expressing non-target cells while the true target cells, if low
CC in CAR, receive little of the therapeutic gene. Modification of the HI
CC loop by replacement of the hypervariable region of the loop with a
CC peptide such as the RGD peptide results in the
CC ability of the virus to utilise an alternative receptor during the cell
CC entry process. Modifying the adenovirus fibre knob protein in this way
CC increases the ability of an adenovirus to transduce a tumour cell in
CC vitro, in vivo and ex vivo. The vector Ad5FHIFLAG incorporating an RGD
CC peptide demonstrated two to three orders of magnitude
CC of increased gene transfer to ovarian cancer cells. The modified
CC adenovirus has an altered tropism, which allows the adenovirus to be
CC targeted to selected cell types. The recombinant adenovirus can be used
CC to provide gene therapy for individuals suffering from cancer, cystic
CC fibrosis and Duchenne's muscular dystrophy.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 7
AAW93626
ID AAW93626 standard; Protein; 9 AA.
XX
AC AAW93626;
XX
DT 28-JUN-1999 (first entry)
XX
DE NGR receptor binding tumour homing peptide 5.
XX
KW Tumour homing peptide; tumour; diagnosis; endothelial cell;
KW angiogenic vasculature; anti-tumour; anti-inflammatory; anti-angiogenic;
KW anti-arthritic; NGR receptor; inhibitor; angiogenesis; anticancer drug;
KW prognosis; inflammation; regeneration; wounded tissue; targetting;
KW macular degeneration; diabetic retinopathy; rheumatoid arthritis;
KW occlusive thrombus.
XX
OS Synthetic.
XX
PN WO9913329-A1.
XX
PD 18-MAR-1999.
XX
PF 08-SEP-1998; 98WO-US18895.
XX
PR 25-AUG-1998; 98US-0139802.
PR 10-SEP-1997; 97US-0926914.
XX
PA (BURN-) BURNHAM INST.
XX
PI Pasqualini R, Ruoslahti E;
XX
DR WPI; 1999-215158/18.
XX
PT Identifying molecules that home to angiogenic vasculature used as
PT targets for anticancer agents
XX
PS Claim 15; Page 7; 180pp; English.
XX
CC This invention describes novel peptides which home to angiogenic
CC vasculature, specifically of a tumour and which have anti-tumour,
CC anti-inflammatory, anti-angiogenic and anti-arthritic activity. Such
CC molecules are identified by treating a purified NGR receptor with a test
CC compound and identifying compounds that bind specifically to the NGR
CC receptor. The peptides of the invention are inhibitors of angiogenesis
CC and can be used to produce conjugates for delivering agents to
CC angiogenic vasculature, particularly anticancer drugs or an imaging
CC agent, for diagnosis or prognosis. These conjugates may be directed to
CC non-tumour angiogenic vasculature, e.g. that present in inflammatory,
CC regenerating or wounded tissue, e.g. for treatment of macular
CC degeneration, diabetic retinopathy or rheumatoid arthritis. The peptides
CC provide specific targeting to tumours, especially their supporting
CC vasculature, since the NGR receptor is exposed to the circulation only in
CC angiogenic vasculature. Precise targeting should reduce the systemic
CC toxicity of anticancer drugs in the conjugates. Complete killing of all
CC target cells may not be essential since partial denudation of endothelium
CC may result in an occlusive thrombus, and endothelial cells are unlikely
CC to become resistant to anticancer agents nor to lose the targeting
CC receptor. AAW93622-W93809 and AAW93843-44 are examples of tumour homing

CC peptides used in the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 8
AAB21701
ID AAB21701 standard; Peptide; 9 AA.
XX
AC AAB21701;
XX
DT 22-MAR-2001 (first entry)
XX
DE Human breast tumour homing peptide #1.
XX
KW Cytostatic; homing pro-apoptotic conjugate; tumour; antimicrobial;
KW breast; prostate; melanoma; cancer; Kaposi's sarcoma; human.
XX
OS Homo sapiens.
XX
PN WO200042973-A2.
XX
PD 27-JUL-2000.
XX
PF 21-JAN-2000; 2000WO-US01602.
XX
PR 22-JAN-1999; 99US-0235902.
XX
PA (BURN-) BURNHAM INST.
XX
PI Ellerby HM, Bredesen DE, Pasqualini R, Ruoslahti EI;
XX
DR WPI; 2000-499174/44.
XX
PT Homing pro-apoptotic conjugate comprising a tumor homing molecule that
PT selectively homes to a mammalian cell type or tissue linked to an
PT antimicrobial peptide, useful for the treatment of prostate cancer -
XX
PS Claim 12; Page 105; 118pp; English.
XX
CC The present invention relates to homing pro-apoptotic conjugates,
CC comprising of a tumour homing molecule that selectively homes to a
CC mammalian cell type or tissue, linked to an antimicrobial peptide. The
CC homing pro-apoptotic conjugates are selectively internalised by the
CC mammalian cell type or tissue and exhibits high toxicity, especially to
CC angiogenic vasculature. The antimicrobial peptide has low mammalian cell
CC toxicity when not linked to the tumor homing molecule. The conjugates are
CC useful for the treatment of cancer e.g. Kaposi's sarcoma, breast and
CC prostate cancer or melanoma. The present sequence is a homing peptide
CC isolated in the present invention, which can be conjugated to an
CC antimicrobial peptide to make the homing pro-apoptotic conjugates of the
CC present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 9
AAB17346
ID AAB17346 standard; Peptide; 9 AA.
XX
AC AAB17346;
XX
DT 31-OCT-2000 (first entry)
XX
DE Integrin-binding peptide sequence SEQ ID NO:450.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Claim 39; Page 354; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 10
AAB17928
ID AAB17928 standard; Peptide; 9 AA.

XX
AC AAB17928;
XX
DT 31-OCT-2000 (first entry)
XX
DE TPO-mimetic peptide sequence SEQ ID NO:1032.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Disclosure; Page 559; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 11
AAB17964
ID AAB17964 standard; Peptide; 9 AA.
XX
AC AAB17964;
XX
DT 31-OCT-2000 (first entry)
XX
DE Integrin-binding peptide sequence SEQ ID NO:1076.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Claim 39; Page 591; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 12
AAY90211
ID AAY90211 standard; peptide; 9 AA.
XX
AC AAY90211;
XX
DT 21-SEP-2000 (first entry)

```
XX
DE   Alphav integrin targeting peptide #1.
XX
KW   Ligand epitope; UPAR; urokinase-type plasminogen activator receptor;
KW   adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease;
KW   recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma;
KW   smooth muscle cell proliferation inhibitor; coronary artery disease;
KW   obesity; neurodegenerative disease; infection; autoimmune disease; HIV;
KW   thrombosis; diabetes; tropism-modified virus.
XX
OS   Adenovirus sp.
XX
PN   WO200012738-A1.
XX
PD   09-MAR-2000.
XX
PF   27-AUG-1999;   99WO-IB01524.
XX
PR   27-AUG-1998;   98US-0098028.
XX
PA   (AVET ) AVENTIS PHARMA SA.
XX
PI   Vigne E,  Dedieu J,  Latta M,  Yeh P,  Perricaudet M;
XX
DR   WPI; 2000-256653/22.
XX
PT   Urokinase-type plasminogen activator receptor (UPAR)-targeted
PT   adenovirus vectors having modified hexon HVR5 and HI loops and modified
PT   fiber proteins useful for targeted gene therapy to treat cancer or
PT   restenosis -
XX
PS   Example 5; Page 53; 128pp; English.
XX
CC   This sequence represents a alphav integrin targeting peptide.
CC   The invention relates to an adenovirus from which at
CC   least a part of the hexon HVR5 or HI loop is replaced with a binding
CC   peptide, or targeting sequence, flanked by connecting amino acid spacers,
CC   to functionally display its binding specificity at the capsid surface.
CC   The invention also relates to a recombinant adenovirus vector where a
CC   binding peptide, or targeting sequence, is connected to the C-terminus of
CC   the fiber by a connecting spacer, or linker, so as to functionally
CC   display its binding specificity at the capsid surface. The adenovirus or
CC   recombinant adenovirus vector can be used to preferentially express a
CC   gene in a target cell, especially a cell that expresses a UPAR. The
CC   targeted adenovirus vector preferably comprises a heterologous gene
CC   encoding a gene for treatment of a tumour or restenosis. The targeted
CC   adenovirus vector is useful for gene therapy treatment of a disease, and
CC   for manufacturing a medicine used in gene therapy treatment of a disease.
CC   The viruses can also be used to inhibit smooth muscle cell proliferation,
CC   to treat peripheral artery diseases, coronary artery diseases, obesity,
CC   neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
CC   thrombosis, and diabetes. The viruses are particularly targeted against a
CC   urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC   are tropism-modified without adversely impacting productivity of the
CC   vectors.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 21;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 13
AAY44970
ID   AAY44970 standard; Protein; 9 AA.
XX
AC   AAY44970;
XX
DT   23-MAY-2000  (first entry)
XX
DE   RGD-4C targeting sequence for KDEL receptor inhibitor protein.
XX
KW   KDEL receptor inhibitor; heat shock protein; immune response;
KW   oligomerisation domain; neoplasia; sarcoma; lymphoma; leukaemia;
KW   melanoma; carcinoma; glioblastoma; astromytoma; oncogene;
KW   infectious disease; allergy; autoimmune disease.
XX
OS   Unidentified.
XX
PN   WO200006729-A1.
XX
PD   10-FEB-2000.
XX
PF   28-JUL-1999;   99WO-US17147.
XX
PR   29-JUL-1998;   98US-0124671.
XX
PA   (SLOK ) SLOAN KETTERING INST CANCER RES.
XX
PI   Rothman JE,  Mayhew M,  Hoe MH;
XX
DR   WPI; 2000-195296/17.
XX
PT   Inhibitors of the KDEL receptor which comprises an oligomerization
PT   domain useful for promoting secretion of proteins which are normally
PT   retained within the cell -
XX
PS   Disclosure; Page 17; 87pp; English.
XX
CC   The patent discloses the use of KDEL receptor inhibitor to promote
CC   secretion of proteins that are normally retained within the cell such as
CC   heat shock proteins by inhibiting KDEL receptor-mediated return of
CC   protein complexes to endoplasmic reticulum. This makes the secreted heat
CC   shock proteins more accessible to the immune system and improves immune
CC   response to a target antigen. The inhibitor protein comprises several
CC   subunits where each subunit comprises an oligomerisation domain and has
CC   at its carboxy terminus a region which binds to a KDEL receptor. The
CC   target antigen may be associated with diseases including neoplasia such
CC   as sarcoma, lymphoma, leukemia, melanoma, carcinoma, glioblastoma and
CC   astromytoma, with defective tumour suppressor genes, oncogenes,
CC   infectious diseases, allergy or autoimmune diseases. The present
CC   sequence is a targeting peptide termed RGD-4C. This may be incorporated
CC   into the amino terminal region of a KDEL receptor inhibitor protein
CC   downstream from a cleavably removed sequence to improve its activity or
CC   alter its immunogenicity.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 21;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 14
AAY54271
ID   AAY54271 standard; Peptide; 9 AA.
XX
AC   AAY54271;
XX
DT   06-APR-2000  (first entry)
XX
DE   Alpha Vbeta-3 binding peptide sequence.
XX
KW   Envelope protein; mutant; retrovirus; surface protein shedding;
KW   envelope protein stability; gene therapy; drug therapy; cancer;
KW   adenosine deaminase deficiency; thalassemia; hemophilia; diabetes;
KW   alpha-anti trypsin deficiency; brain disorder; neural disorder;
```

KW phenylketonuria; growth disorder; heart disease; immune disease.
XX
OS Unidentified.
XX
PN WO9960110-A2.
XX
PD 25-NOV-1999.
XX
PF 20-MAY-1999; 99WO-US11155.
XX
PR 20-MAY-1998; 98US-0086149.
XX
PA (UYTE-) UNIV TENNESSEE RES CORP.
XX
PI Albritton LM, Zavorotinskaya T;
XX
DR WPI; 2000-116313/10.
XX
PT Novel isolated nucleic acid, useful for gene therapy -
XX
PS Example 10; Page 84; 190pp; English.
XX
CC The specification describes mutant retrovirus envelope proteins. The
CC envelope protein coding sequence can be mutated to encode a mutant
CC envelope protein with a substitution of one or more amino acids in at
CC least one motif of the retrovirus protein. The mutant protein fragment
CC allows for decreased shedding of the surface protein by suppressing
CC precursor cleavage and increase envelope stability and fusion of
CC retroviruses with cell membranes, while maintaining mutant envelope
CC protein incorporation into a virion, and viral titers of about two orders
CC of magnitude within that observed for wild-type retrovirus when the
CC protein or fragment is expressed on the surface of a retroviral particle.
CC The proteins have an increased ability to penetrate targets, typically
CC cells and a correspondingly increased ability to deliver nucleic acids or
CC drugs. The mutated nucleic acid is useful for gene and drug therapy,
CC especially as drug delivery vehicles. The retrovirus particles can be
CC utilized to transduce eukaryotic cells. The transduced cells are useful
CC in the treatment of cancer in a human. Other diseases contemplated for
CC treatment include adenosine deaminase deficiency (ADA), thalassemia,
CC hemophilia, diabetes, alpha-anti trypsin deficiency, brain and neural
CC disorders, phenylketonuria, growth disorders, heart diseases and immune
CC diseases. The present sequence was used in the course of the invention,
CC to quantitate targeted retroviral vector gene delivery in vivo.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 15
AAE11044
ID AAE11044 standard; peptide; 9 AA.
XX
AC AAE11044;
XX
DT 18-DEC-2001 (first entry)
XX
DE RGD-containing peptide.
XX
KW Tumour necrosis factor; TNF; cytokine; cytostatic; virucide;
KW TNF related apoptosis inducing ligand; TRAIL; cancer; viral infection;
KW human immunodeficiency virus; HIV; leukaemia; gene therapy; lymphoma;
KW melanoma.
XX
OS Unidentified.
XX
PN US6284236-B1.
XX
PD 04-SEP-2001.
XX
PF 26-MAY-1999; 99US-0320424.
XX
PR 29-JUN-1995; 95US-0496632.
PR 01-NOV-1995; 95US-0548368.
PR 25-JUN-1996; 96US-0670354.
PR 26-MAR-1998; 98US-0048641.
PR 10-NOV-1998; 98US-0190046.
XX
PA (IMMV) IMMUNEX CORP.
XX
PI Wiley SR, Goodwin RG;
XX
DR WPI; 2001-595463/67.
XX
PT New tumor necrosis factor related apoptosis inducing ligand
PT polypeptides for treating viral infections (e.g. bovine viral diarrhea
PT or human immunodeficiency virus), or cancers (e.g. leukemia or
PT lymphoma) -
XX
PS Disclosure; Column 11; 41pp; English.
XX
CC The invention relates to a cytokine designated as tumour necrosis
CC factor (TNF) related apoptosis inducing ligand (TRAIL), which induces
CC apoptosis of certain target cells, including cancer cells and virally
CC infected cells. The TRAIL polypeptides are useful in killing cancer
CC cells, in treating viral infections (e.g. bovine viral diarrhoea or
CC human immunodeficiency virus (HIV)) and cancers (e.g. leukaemia,
CC lymphoma and melanoma), as a research reagent useful in studying
CC apoptosis including the regulation of programmed cell death. TRAIL
CC DNA sequences may be employed in developing a gene therapy approach
CC to treating disorders mediated by defective or insufficient amounts
CC of TRAIL, in the production of TRAIL polypeptides and as probes or
CC primers in polymerase chain reactions (PCR). The present sequence is
CC a RGD-containing peptide that binds an integrin associated with
CC tumour. This sequence is used to construct a fusion protein
CC comprising TRAIL protein.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 16
AAE06279
ID AAE06279 standard; peptide; 9 AA.
XX
AC AAE06279;
XX
DT 25-SEP-2001 (first entry)
XX
DE Tumour homing peptide used for homing pro-apoptotic conjugates.
XX
KW Chimeric prostate-homing pro-apoptotic peptide; prostate-homing peptide;
KW antimicrobial peptide; prostate cancer; tumour homing molecule;
KW cytostatic; RGD motif.
XX
OS Synthetic.
XX
PN WO200153342-A1.
XX
PD 26-JUL-2001.
XX
PF 16-JAN-2001; 2001WO-US01362.
XX

PR 21-JAN-2000; 2000US-0489582.
XX
PA (BURN-) BURNHAM INST.
XX
PI Ruoslahti EI, Pasqualini R, Arap W, Bredesen DE, Ellerby HM;
XX
DR WPI; 2001-451901/48.
XX
PT Novel chimeric prostate-homing pro-apoptotic peptide, used to treat
PT prostate cancer, comprises a prostate-homing peptide linked to an
PT antimicrobial peptide -
XX
PS Example 3B; Page 84; 176pp; English.
XX
CC The patent discloses novel chimeric prostate-homing pro-apoptotic
CC peptide which comprises a prostate-homing peptide linked to an
CC antimicrobial peptide, where the chimeric peptide is selectively
CC internalised by and exhibits high toxicity to prostate tissue and
CC where the antimicrobial peptide has low mammalian cell toxicity when
CC not linked to prostate-homing peptide. The chimeric peptide is used
CC to direct an antimicrobial peptide in vivo to a prostate cancer, to
CC induce selective toxicity in vivo in a prostate cancer, and to treat
CC a patient with prostate cancer. The present peptide sequence is a
CC tumour homing molecule containing a RGD motif. This sequence is
CC useful in the homing of pro-apoptotic conjugates of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 17
AAB97086
ID AAB97086 standard; peptide; 9 AA.
XX
AC AAB97086;
XX
DT 02-AUG-2001 (first entry)
XX
DE Integrin-binding peptide #4.
XX
KW Integrin; avB3; avB5; analgesic; cytostatic; macrocyclic chelant;
KW metal chelate formation; metalloradiopharmaceutical;
KW magnetic resonance imaging; MRI; disease diagnosis;
KW systemic radiotherapy; bone pain; bone cancer; antagonist.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "The amino group of the residue at position 1
FT forms a peptide bond with the carboxy group of
FT the residue at position 9 to form a cyclic
FT molecule"
FT Modified-site 9
FT /note= "The amino group of the residue at position 1
FT forms a peptide bond with the carboxy group of
FT the residue at position 9 to form a cyclic
FT molecule"
XX
PN WO200119838-A1.
XX
PD 22-MAR-2001.
XX
PF 07-SEP-2000; 2000WO-US24482.
XX
PR 13-SEP-1999; 99US-0153512.
XX
PA (DUPO) DU PONT PHARM CO.
XX
PI Liu S;
XX
DR WPI; 2001-389600/41.
XX
PT New nitrogen containing macrocyclic chelant compounds used in metal
PT chelates for e.g. X-ray imaging and for attaching diagnostic and
PT therapeutic isotopes to biologically active targeting molecules -
XX
PS Disclosure; Page 72; 121pp; English.
XX
CC The present sequence is provided in a specification relating to novel
CC nitrogen containing macrocyclic chelant compounds. The compounds are
CC used for forming metal chelates used as diagnostic or therapeutic
CC metalloradiopharmaceuticals, or magnetic resonance imaging (MRI)
CC contrast agents. They are also used for attaching metal ions to
CC bio-directing groups including proteins, peptides, peptidomimetics
CC and non peptides that bind in vivo to a receptor or enzyme that is
CC expressed or up-regulated at a site or in a disease state. The
CC metallopharmaceuticals are used in disease diagnosis by MRI or in
CC treating disease by systemic radiotherapy. Radiolanthide chelates
CC with phosphonomethyl and optionally carboxymethyl groups on the four
CC N atoms can be used for treating bone pain and bone metastases.
CC The macrocyclic chelants rapidly form stable metal chelates. The
CC present sequence binds with high affinity to the integrins avB3 and
CC avB5.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 18
AAB20271
ID AAB20271 standard; Peptide; 9 AA.
XX
AC AAB20271;
XX
DT 14-MAY-2001 (first entry)
XX
DE Peptide that specifically targets tumour blood vessels.
XX
KW Tumour; breast carcinoma; Karposi's sarcoma; melanoma;
KW fiberless radiative effector; therapy; imaging.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 4..6
FT /note= "RGD motif"
XX
PN WO200108660-A2.
XX
PD 08-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20292.
XX
PR 02-AUG-1999; 99US-0366314.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Philbert MA, Tjalkens R, Aylott JW, Clark HA, Monson EE;
PI Kopelman R;
XX
DR WPI; 2001-182851/18.

XX
PT Composition for destroying or inhibiting growth of tumour cells and
PT for imaging tumours or other biological targets, has molecular
PT recognition element attached to fiberless radiative effector having
PT a toxic agent -
XX
PS Disclosure; Page 35; 95pp; English.
XX
CC The present sequence is that of a peptide that specifically binds
CC to tumour blood vessels. It includes an RGD motif. The peptide,
CC and conjugates containing it, selectively binds to various tumours,
CC including breast carcinomas, Karposi's sarcoma and melanoma. The
CC peptide can be used as the molecular recognition element of novel
CC fiberless radiative effectors (FREs) of the invention. The
CC invention is related to cell or pathogen destruction via FREs
CC that encapsulate a radical generator. The FREs include a polymer
CC matrix, a photodynamic or radiodynamic dye which produces free
CC radicals upon stimulation, cloaking material, and at least 1
CC molecular recognition element for targeting to a biological target,
CC e.g. the present peptide. They are useful in various in vitro and
CC in vivo procedures, destroying or inhibiting the growth of
CC biological targets (pathogens, macromolecules, tumour cells in
CC culture or in the body), in therapies including chemotherapy,
CC radiation therapy, antibiotic and vaccine therapy.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 19
AAB50242
ID AAB50242 standard; peptide; 9 AA.
XX
AC AAB50242;
XX
DT 13-MAR-2001 (first entry)
XX
DE Enhanced infectivity adenoviral vector fibre replacement ligand.
XX
KW Adenoviral vector; gene therapy; infectability;
KW tumour-specific replication.
XX
OS Unidentified.
XX
PN WO200067576-A1.
XX
PD 16-NOV-2000.
XX
PF 12-MAY-2000; 2000WO-US13114.
XX
PR 12-MAY-1999; 99US-0133634.
XX
PA (UABR-) UAB RES FOUND.
XX
PI Curiel DT, Krasnykh VN, Alemany R, Dmitriev I;
XX
DR WPI; 2001-122702/13.
XX
PT New infectivity-enhanced, conditionally-replicative adenovirus
PT containing a modified wild type adenoviral fiber, useful for cancer
PT therapy -
XX
PS Claim 8; Page 70; 104pp; English.
XX
CC The present invention provides an adenoviral vector with an enhanced
CC ability to infect tumour cells and which is conditionally replicative,
CC enabling replication in only one cell type. This can be used in the
CC gene therapy treatment of cancers.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 20
ABB79525
ID ABB79525 standard; Peptide; 9 AA.
XX
AC ABB79525;
XX
DT 23-SEP-2002 (first entry)
XX
DE RGD motif-containing peptide.
XX
KW RGD motif; integrin; tumour; metastasis; imaging.
XX
OS Unidentified.
XX
PN WO200247537-A2.
XX
PD 20-JUN-2002.
XX
PF 11-DEC-2001; 2001WO-US48157.
XX
PR 11-DEC-2000; 2000US-0734628.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Chinnaiyan AM, Rehemtulla A, Ross BD;
XX
DR WPI; 2002-547820/58.
XX
PT Chimeric molecule useful in situ and in vivo imaging of cells and
PT tissues e.g. tumor tissues comprises a first domain and a second domain
PT -
XX
PS Claim 9; Page 25; 35pp; English.
XX
CC The present sequence is that of a peptide including the tripeptide
CC Arg-Gly-Asp (RGD) motif that is often the primary site of
CC recognition by integrins that are expressed on tumour cells and
CC which are responsible for tumour invasion and metastasis. Imaging
CC of cells that can specifically bind to RGD-expressing peptide and
CC polypeptide ligands in vivo can identify tumour cells and tumour
CC blood vessels. A claimed chimeric molecule consists of: a first
CC domain comprising a fluorescent, bioluminescent or chemiluminescent
CC polypeptide or a heterologous kinase; and a second domain comprising
CC an RGD motif-containing polypeptide, a selectin-binding polypeptide,
CC a matrix metalloproteinase-binding polypeptide, or a chondroitin
CC sulfate proteoglycan-binding polypeptide, where the RGD
CC motif-containing polypeptide preferably comprises the present
CC amino acid sequence. The chimeric molecule is used in methods and
CC compositions for imaging cells and tissues in vivo and in situ, and
CC especially for identifying sites of primary and metastatic tumours
CC and tumour neovasculature. The chimeric molecules enhance the
CC imaging of cells and tissues by, e.g., computer assisted tomography
CC (CAT), magnetic resonance spectroscopy (MRS), magnetic resonance
CC imaging (MRI), positron emission tomography (PET), single-photon
CC emission computed tomography (SPECT) or bioluminescence imaging.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;

```
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 21
AAU98837
ID   AAU98837 standard; Peptide; 9 AA.
XX
AC   AAU98837;
XX
DT   22-AUG-2002  (first entry)
XX
DE   Tumour homing peptide RGD-4C.
XX
KW   Targeting peptide; cancer; tumour targeting; cytostatic; anti-HIV;
KW   immunostimulant; immunogen; cancer; human immunodeficiency virus;
KW   HIV; vector delivery.
XX
OS   Synthetic.
XX
PN   WO200220724-A2.
XX
PD   14-MAR-2002.
XX
PF   07-SEP-2001; 2001WO-US28045.
XX
PR   08-SEP-2000; 2000US-231266P.
PR   17-JAN-2001; 2001US-0765101.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Arap W,  Pasqualini R;
XX
DR   WPI; 2002-489672/52.
XX
PT   Modulation of immune system response comprises administration of
PT   targeting peptide attached to immunogen  -
XX
PS   Disclosure; Page 11; 86pp; English.
XX
CC   This invention relates to a method for modulating the immune system
CC   response comprising administration of a lymph node targeting peptide
CC   attached to an immunogen. The invention also comprises a bispecific
CC   compound comprising the sequences Cys-Ala-Tyr or Ser-Cys-Ala-Arg,
CC   a bispecific compound comprising a targeting peptide attached to a
CC   vector binding moiety and a method for targeting a vector to an organ or
CC   tissue comprising administering the vector and a complex comprising a
CC   targeting peptide and a binding moiety. The peptides of the invention
CC   may have cytostatic, anti-HIV or immunostimulant activities. The method
CC   of the invention is useful for increasing the immune response to an
CC   immunogen, especially a cancer cell or human immunodeficiency virus
CC   (HIV). The method is useful for the selective delivery of gene
CC   therapy vectors. The present sequence represents an tumour homing
CC   peptide RGD-4C used in the method of the invention.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 23;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 22
ABB76442
ID   ABB76442 standard; Peptide; 9 AA.
XX
AC   ABB76442;
XX
DT   02-SEP-2002  (first entry)
XX
DE   RGD-4C Peptide with integrin binding affinity.
XX
KW   Integrin; adenovirus; vector; cancer; tumour; gene therapy.
XX
OS   Synthetic.
XX
PN   US2002058045-A1.
XX
PD   16-MAY-2002.
XX
PF   01-MAY-2001; 2001US-0845160.
XX
PR   31-MAY-2000; 2000JP-0161577.
PR   27-APR-2001; 2001JP-0131688.
XX
PA   (NAHE-) NAT INST HEALTH SCI.
XX
PI   Mizuguchi H,  Hayakawa T;
XX
DR   WPI; 2002-499507/53.
DR   N-PSDB; ABN83749.
XX
PT   A method for constructing a fiber-mutant adenovirus vector in which a
PT   foreign peptide is introduced by a simple system into the fiber HI
PT   loop-coding gene of adenovirus providing a more effective means of
PT   introducing foreign peptides  -
XX
PS   Example 1; Page 4; 13pp; English.
XX
CC   The present sequence is that of an RGD-4C peptide having binding
CC   affinity to cell surface integrins.  DNA encoding a foreign peptide,
CC   such as the present sequence, may be introduced into a fibre HI
CC   loop-coding gene sequence using a method of the invention for
CC   construction of fibre-mutant adenovirus vectors.  The fibre HI loop
CC   comprises amino acids 537-549 of a fibre molecule.  Insertion of a
CC   foreign peptide into this region does not affect the formation of
CC   trimers by the fibre molecules.  A claimed method for constructing
CC   a fibre-mutant adenovirus vector comprises inserting a unique
CC   restriction enzyme recognition sequence, especially Csp45I and/or
CC   ClaI, into the fibre HI loop-encoding gene, and introducing a
CC   foreign peptide-encoding DNA into the gene sequence.  The peptide
CC   preferably includes the tripeptide Arg-Gly-Asp (RGD) or Asn-Gly-Arg
CC   (NGR) and has tropism for tumour vascular endothelial cells.
CC   Selection of RGD-4C as the foreign peptide can improve the
CC   efficiency of gene introduction not only to adenovirus-sensitive
CC   cells but also to e.g. CHO cells, respiratory epidermic cells,
CC   smooth muscle cells, vascular endothelial cells, T-cells, macrophages,
CC   haematopoietic stem cells, dendritic cells and cancer cells which
CC   are CAR-negative but which express integrins on their surfaces, e.g.
CC   human glioma LN444 cells.  A synthetic oligonucleotide encoding the
CC   peptide and including Csp45I and ClaI restriction sites can be
CC   ligated directly into the HI loop-coding gene sequence digested with
CC   the corresponding restriction enzymes.  The fiber-mutant adenovirus
CC   vector has high gene transfer efficiency.
XX
SQ   Sequence   9 AA;

  Query Match             100.0%;  Score 65;  DB 23;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 23
ABB08066
```

ID ABB08066 standard; peptide; 9 AA.
XX
AC ABB08066;
XX
DT 27-AUG-2002 (first entry)
XX
DE Cyclic RGD (cRGD) targeting ligand domain.
XX
KW Targeting molecule; adenoviral receptor domain; trimerisation; cancer;
KW coxsackie-adenovirus receptor; CAR; transmembrane protein; cytostatic;
KW hepatotropic; virucide; gene therapy; RGD; cRGD; cyclic.
XX
OS Homo sapiens.
XX
PN WO200229072-A2.
XX
PD 11-APR-2002.
XX
PF 05-OCT-2001; 2001WO-EP11514.
XX
PR 06-OCT-2000; 2000US-327562P.
PR 06-OCT-2000; 2000US-0684552.
XX
PA (NOVS) NOVARTIS AG.
PA (NOVS) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI Kim JG, Smith T, Stevenson SC, Kaleko M;
XX
DR WPI; 2002-471317/50.
XX
PT A targeting molecule for use in forming complexes to treat cancer, such
PT as adenocarcinoma of the prostate, comprises a soluble adenoviral
PT receptor domain, a trimerization domain and a targeting ligand domain -
XX
PS Example 2; Page 32; 75pp; English.
XX
CC The invention relates to a targeting molecule that comprises a soluble
CC adenoviral receptor domain, a trimerisation domain and a targeting ligand
CC domain. The targeting molecules are used for targeting an adenoviral
CC particle to a cell expressing a cell surface molecule. The method
CC involves contacting the adenoviral particle with the targeting molecule
CC to form a complex, and contacting the cell with the complex, and in
CC delivering a heterologous gene selectively to a cell. The complex is used
CC for preparing a medicament for treatment of disease in a human mammal,
CC such as cancer, preferably, adenocarcinoma of the prostate, by gene
CC therapy. The present sequence represents a cyclic RGD (cRGD) targeting
CC ligand domain, used in the targeting molecule of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 24
ABG35079
ID ABG35079 standard; Peptide; 9 AA.
XX
AC ABG35079;
XX
DT 15-JUL-2002 (first entry)
XX
DE RGD-4C-beta gal phage transduction inhibitor peptide.
XX
KW Targeting peptide; cancer; Hodgkin's disease; cytostatic;
KW immunosuppressive; anti-inflammatory; antiarthritic; antiviral;
KW antiatherosclerotic; antidiabetic; antibacterial; diabetes mellitus;
KW inflammatory disease; arthritis; atherosclerosis; cancer;
KW autoimmune disease; bacterial infection; viral infection.
XX
OS Synthetic.
XX
PN WO200220722-A2.
XX
PD 14-MAR-2002.
XX
PF 07-SEP-2001; 2001WO-US27702.
XX
PR 08-SEP-2000; 2000US-231266P.
PR 17-JAN-2001; 2001US-0765101.
XX
PA (TEXA) UNIV TEXAS SYSTEM.
XX
PI Arap W, Pasqualini R;
XX
DR WPI; 2002-383050/41.
XX
PT Identifying targeting peptides useful for treating e.g. diabetes
PT mellitus, inflammatory diseases, cancer, or autoimmune diseases,
PT comprises exposing a sample to a phage display library and recovering
PT phage bound to the sample -
XX
PS Disclosure; Page 262; 298pp; English.
XX
CC This invention relates to a novel method for identifying disease
CC targeting peptides. The method comprises exposing a sample from an
CC organ, tissue or cell type of interest, to a phage display library and
CC recovering phage bound to the sample (the phage expresses targeting
CC peptides). The peptides identified by the method of the invention may
CC have cytostatic, immunosuppressive, anti-inflammatory, antiarthritic,
CC antiatherosclerotic, antidiabetic, antibacterial and antiviral
CC activities. The methods and composition are useful for identifying
CC targeting peptides and one or more receptors for a targeting peptide.
CC The targeting peptides are used for selective delivery of therapeutic
CC agents, including gene therapy vectors and fusion proteins, to specific
CC organs, tissues, or cell types in subject. The targeting peptide may
CC also be used for treating diseases such as diabetes mellitus,
CC inflammatory diseases, arthritis, atherosclerosis, cancer, autoimmune
CC diseases, bacterial and viral infections and Hodgkin's disease. The
CC present sequence represents a targeting peptide of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 25
AAU79138
ID AAU79138 standard; Peptide; 9 AA.
XX
AC AAU79138;
XX
DT 18-JUN-2002 (first entry)
XX
DE Synthetic peptide #38 used for production of cancer treating kit.
XX
KW Cyclic; cytostatic; tumour neovasculature; receptor; binder; cancer;
KW anticancer agent; radiosensitiser agent; photodynamic therapy;
KW tumour imaging; angiogenesis; rheumatoid arthritis; kit;
KW alpha-v-beta3; alpha-v-beta5.
XX
OS Synthetic.
XX
PN WO200197860-A2.
XX

PD 27-DEC-2001.
XX
PF 21-JUN-2001; 2001WO-US20108.
XX
PR 21-JUN-2000; 2000US-213206P.
XX
PA (DUPO) DUPONT PHARM CO.
XX
PI Rajopadhye M, Edwards DS, Barrett JA, Carpenter AP, Heminway SJ;
PI Liu S, Singh P;
XX
DR WPI; 2002-195659/25.
XX
PT Kit used for treating cancer comprises peptide compound and anticancer
PT and/or radiosensitiser agent -
XX
PS Disclosure; Page 106; 306pp; English.
XX
CC The present invention relates to a new kit which comprises a peptide
CC compound, an anticancer agent and/or radiosensitiser agent and a carrier.
CC The kit of the invention can be used for treating cancer, preferably in
CC combination with photodynamic therapy, for tumour imaging and for
CC monitoring the progress and results of therapeutic angiogenesis
CC treatment. The invention is also used for treating rheumatoid arthritis.
CC The present amino acid sequence represents one of a collection of
CC peptides (AAU79101-AAU79139) used in the methods of the invention for
CC the production of kits used for treating cancer. The present sequence
CC binds alpha-v-beta3 and alpha-v-beta5.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 26
AAE17983
ID AAE17983 standard; peptide; 9 AA.
XX
AC AAE17983;
XX
DT 07-MAY-2002 (first entry)
XX
DE Human ligand #3 attached to an adenoviral vector.
XX
KW Human; adenoviral coat protein; non-native ligand; cell-surface receptor;
KW therapy; anti-tumour agent; tumour necrosis factor; cancer; brain; lung;
KW ovary; breast; prostate; alphavbeta3 integrin.
XX
OS Homo sapiens.
XX
PN WO200192549-A2.
XX
PD 06-DEC-2001.
XX
PF 30-MAY-2001; 2001WO-US17391.
XX
PR 31-MAY-2000; 2000US-208451P.
PR 02-AUG-2000; 2000US-0631191.
XX
PA (GENV-) GENVEC INC.
XX
PI Wickham TJ, Kovesdi I,. Roelvink PW, Einfeld D, Brough DE;
PI Lizonova A;
XX
DR WPI; 2002-147620/19.
XX
PT Adenoviral coat protein which permits production of adenoviral vectors
PT that bind and infect host cells not naturally infected by adenovirus,
PT comprises various non-native ligands -
XX
PS Claim 4; Page 40; 45pp; English.
XX
CC The invention relates to adenoviral coat proteins comprising various
CC non-native ligands. The invention provides a method of controlled
CC gene expression utilising selectively replication competence and also
CC a method and a composition for targetting an adenoviral vector. A
CC system comprising a cell having a non-native cell-surface receptor,
CC and a virus having a non-native ligand which binds the non-native
CC cell-surface receptor of the cell is useful for propagating a virus
CC and also for assaying gene function. The system is also useful for
CC isolating a nucleic acid encoding a product comprising a desired
CC property. Further the system is useful for identifying functionally
CC related coding sequences. Adenoviral vector comprising a non-native
CC nucleic acid encoding a therapeutic agent such as anti-tumour agent,
CC preferably tumour necrosis factor and a second non-native nucleic
CC acid encoding an agent that facilitates imaging and a targetting
CC agent is useful for treating an animal. The therapeutic agent can be
CC used to treat cancer of the brain, lung, ovary, breast and prostate.
CC The present sequence is human non-native ligand specific for
CC alphavbeta3 integrin, attached to an adenoviral vector.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 27
AAG78427
ID AAG78427 standard; peptide; 9 AA.
XX
AC AAG78427;
XX
DT 25-APR-2002 (first entry)
XX
DE Cyclic peptide that binds to alpha-V-beta-3 and alpha-V-beta-5.
XX
KW Basic FGF receptor; bFGFR; macrocyclic chelant; growth factor;
KW metallopharmaceutical; cardiovascular disorder; infection; disease;
KW heavy metal detoxification; medical imaging modality; cytostatic;
KW cyclic; cancer.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Misc-difference 1
FT /note= "linked to residue 6 to form cyclic peptide"
FT Misc-difference 6
FT /note= "linked to residue 1 to form cyclic peptide"
XX
PN WO200177102-A1.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-US11388.
XX
PR 07-APR-2000; 2000US-195234P.
XX
PA (DUPO) DUPONT PHARM CO.
XX
PI Liu S;
XX
DR WPI; 2002-049126/06.
XX
PT New macrocyclic chelants, useful for treating cancer, diagnosing

PT thromboembolic disorders, atherosclerosis, infection, inflammation and
PT transplant rejection, detecting new angiogenic vasculature and metal
PT detoxification -
XX
PS Disclosure; Page 84; 136pp; English.
XX
CC This invention relates to macrocyclic chelants and their salts.
CC They are useful in compositions for treating cancer, diagnosing
CC thromboembolic disorders, atherosclerosis, infections, inflammation and
CC transplant rejection, and for detecting new angiogenic vasculature and
CC metal detoxification. This peptide sequence represents a cyclic
CC peptide that binds to alpha-V-beta-3 and alpha-V-beta-5.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 28
AAU75609
ID AAU75609 standard; Peptide; 9 AA.
XX
AC AAU75609;
XX
DT 08-MAY-2002 (first entry)
XX
DE Synthetic peptide used in binding assay of Tumstatin-45-132.
XX
KW Human; type IV collagen alpha 3 chain; cytostatic; antiangiogenic;
KW non-Goodpasture fragment; alpha3(IV)NC1 domain; alphavbeta3 integrin;
KW endothelial cell proliferation; apoptosis; Arresten; Canstatin;
KW Tumstatin; angiogenesis; tumour.
XX
OS Synthetic.
XX
PN WO200151523-A2.
XX
PD 19-JUL-2001.
XX
PF 08-JAN-2001; 2001WO-US00565.
XX
PR 07-JAN-2000; 2000US-0479118.
PR 04-APR-2000; 2000US-0543371.
PR 21-JUL-2000; 2000US-0625191.
XX
PA (BETH-) BETH ISRAEL DEACONESS MEDICAL CENT.
XX
PI Kalluri R;
XX
DR WPI; 2002-188037/24.
XX
PT A non-Goodpasture fragment of alpha3(IV)NC1 domain used in detecting
PT and treating disorders involving angiogenesis -
XX
PS Example 45; Page 143; 205pp; English.
XX
CC The invention relates to a non-Goodpasture fragment of alpha3(IV)NC1
CC domain, having one or more of the characteristics selected from:
CC (a) the ability to bind alphavbeta3 integrin; (b) the ability to inhibit
CC proliferation of endothelial cells; and (c) the ability to cause
CC apoptosis of endothelial cells. Also described are the following:
CC (1) use of Arresten, Canstatin or Tumstatin, or a fragment,
CC mutant, homologue, analogue or allelic variant in the preparation of a
CC medicament for treating a disorder involving: (a) inhibiting angiogenesis
CC in a tissue, where the angiogenesis is mediated by one or more
CC endothelial cell integrins or one or more endothelial cell integrin
CC subunits; or (b) by promoting or inducing endothelial cell apoptosis in a
CC tissue, where the endothelial cell apoptosis is mediated by one or more
CC endothelial cell integrins or one or more endothelial cell integrin
CC subunits; (2) use of an antibody or peptide that specifically binds the
CC alpha1, alpha2, alpha3, alpha5, alpha6, alphav, beta1 or beta3
CC subunit of integrin in the preparation of a medicament for inhibiting
CC angiogenesis or cell proliferation; (3) use of an inhibitor, such as an
CC antibody, antibody fragment or peptide of receptor-mediated angiogenesis
CC in the preparation of a medicament for treating a proliferative disease
CC in a vertebrate, where the disease is characterised by angiogenesis that
CC is mediated by receptors to Arresten, Canstatin or Tumstatin and where
CC the receptors inhibited are Arresten, Canstatin or Tumstatin receptors;
CC (4) use of one or more soluble receptors that bind Arresten, Canstatin or
CC Tumstatin in the presence of a medicament for promoting angiogenesis in a
CC tissue; and (5) use of integrins in the preparation of a medicament for
CC promoting or inducing angiogenesis or cell proliferation in a tissue.
CC The fragments Arresten, Canstatin or Tumstatin and their mutants,
CC homologues, analogues or allelic variants are useful in the preparation
CC of a medicament for treating a disorder involving inhibiting angiogenesis
CC in a tissue, where the angiogenesis is mediated by one or more
CC endothelial cell integrins or one or more endothelial cell integrin
CC subunits; or by promoting or inducing endothelial cell apoptosis in a
CC tissue, where the endothelial cell apoptosis is mediated by one or more
CC endothelial cell integrins or one or more endothelial cell integrin
CC subunits. The medicament is useful in inhibiting tumour growth and for
CC the regression of an established tumour. The present sequence represents
CC a synthetic peptide used in a binding assay of human type IV collagen
CC alpha 3 chain mutant, Tumstatin-45-132.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 29
AAM48795
ID AAM48795 standard; peptide; 9 AA.
XX
AC AAM48795;
XX
DT 08-APR-2002 (first entry)
XX
DE Tumour-targetting peptide vector peptide SEQ ID NO 1.
XX
KW Tumour; integrin; histidinated polylysine; cytostatic; peptide targeting;
KW cancer.
XX
OS Synthetic.
XX
PN JP2001309790-A.
XX
PD 06-NOV-2001.
XX
PF 02-MAY-2000; 2000JP-0134059.
XX
PR 02-MAY-2000; 2000JP-0134059.
XX
PA (KAGA-) KAGAKU GIJUTSU SHINKO JIGYODAN.
XX
DR WPI; 2002-134852/18.
XX
PT Tumour-targeting peptide vector for diagnosing and treating progressive
PT solid cancer, comprises a peptide having a ligand motif of integrin and
PT a peptide having histidinated polylysine -
XX
PS Disclosure; Page 4; 8pp; Japanese.
XX
CC The invention relates to a tumour-targeting peptide vector comprising a

CC peptide containing a ligand motif of integrin combined with a peptide
CC consisting of histidinated polylysine and where the histidinated
CC polylysine has 20 to 40 lysine residues and one histidine is added to 4
CC lysine residues. The peptide vector has cytostatic activity and can be
CC used for the treatment of progressive solid cancer patients and the
CC diagnosis of progressive solid cancers. The present sequence is that of a
CC peptide of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 30
AAU81110
ID AAU81110 standard; Peptide; 9 AA.
XX
AC AAU81110;
XX
DT 09-APR-2002 (first entry)
XX
DE Integrin-antagonist peptide #17.
XX
KW IgG Fc; anticoagulant; thrombolytic; cytostatic;
KW antiinflammatory; immunosuppressive; osteopathic; antagonist;
KW laminin; saw-scaled viper; echistatin; integrin; selectin; vinculin;
KW platelet aggregation; angiogenesis; tumour; inflammation;
KW autoimmune disease; rheumatoid arthritis; osteoporosis.
XX
OS Synthetic.
XX
PN WO200181377-A2.
XX
PD 01-NOV-2001.
XX
PF 23-APR-2001; 2001WO-US13069.
XX
PR 21-APR-2000; 2000US-198919P.
PR 03-MAY-2000; 2000US-201394P.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Kohno T, Lacey DL, Boone TC;
XX
DR WPI; 2002-062025/08.
XX
PT Composition comprising integrin or adhesion antagonistic peptide and
PT vehicle, useful for treating or preventing platelet aggregation, has a
PT longer half-life than free peptide -
XX
PS Claim 11; Page 19; 68pp; English.
XX
CC The invention relates to a composition comprising an integrin/adhesion
CC antagonistic peptide (I) and a vehicle e.g. IgG Fc. The peptides
CC are based on laminin or saw-scaled viper echistatin and target integrin,
CC selectin or vinculin.Also included are compounds of formula (Ia) and
CC their multimers (X^1)_a-F^1-(X^2)_b where;
CC F^1 = Fc domain;
CC X^1 and X^2 = -(L^1)_c-P^1, (L^1)_c-P^1-(L^2)_d-P^2,
CC (L^1)_c-P^1-(L^2)_d-P^2-(L^3)_e-P^3 or
CC (L^1)_c-P^1-(L^2)_d-P^2-(L^3)_e-P^3-(L^4)_f-P^4;
CC P^1-P^4 = same or different (I);
CC L^1-L^4 = same or different linkers;
CC a-f = 0 or 1, provided at least one of a and b = 1,
CC a nucleic acid that encodes (Ia), an expression vector containing the
CC nucleic acid, host cells containing the vector, producing a
CC pharmaceutically active compound (B) by covalently linking at least one
CC Fc domain to at least one amino acid sequence of a selected randomized
CC (I) and any of six laminin-related peptides (Ib). The compositions are
CC used prophylactically and therapeutically in the same way as (I), e.g. to
CC inhibit platelet aggregation or angiogenesis (tumours), or to treat
CC inflammation and autoimmune diseases (e.g. rheumatoid arthritis) and many
CC different forms of osteoporosis, also for diagnosis. Attaching the
CC vehicle (especially Fc domain) to (I) increases the half-life (free (I)
CC are normally degraded very quickly in vivo). The present sequence
CC is an antagonist peptide of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 31
AAU81134
ID AAU81134 standard; Peptide; 9 AA.
XX
AC AAU81134;
XX
DT 09-APR-2002 (first entry)
XX
DE Integrin-antagonist peptide #41.
XX
KW IgG Fc; anticoagulant; thrombolytic; cytostatic;
KW antiinflammatory; immunosuppressive; osteopathic; antagonist;
KW laminin; saw-scaled viper; echistatin; integrin; selectin; vinculin;
KW platelet aggregation; angiogenesis; tumour; inflammation;
KW autoimmune disease; rheumatoid arthritis; osteoporosis.
XX
OS Synthetic.
XX
PN WO200181377-A2.
XX
PD 01-NOV-2001.
XX
PF 23-APR-2001; 2001WO-US13069.
XX
PR 21-APR-2000; 2000US-198919P.
PR 03-MAY-2000; 2000US-201394P.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Kohno T, Lacey DL, Boone TC;
XX
DR WPI; 2002-062025/08.
XX
PT Composition comprising integrin or adhesion antagonistic peptide and
PT vehicle, useful for treating or preventing platelet aggregation, has a
PT longer half-life than free peptide -
XX
PS Claim 11; Page 19; 68pp; English.
XX
CC The invention relates to a composition comprising an integrin/adhesion
CC antagonistic peptide (I) and a vehicle e.g. IgG Fc. The peptides
CC are based on laminin or saw-scaled viper echistatin and target integrin,
CC selectin or vinculin.Also included are compounds of formula (Ia) and
CC their multimers (X^1)_a-F^1-(X^2)_b where;
CC F^1 = Fc domain;
CC X^1 and X^2 = -(L^1)_c-P^1, (L^1)_c-P^1-(L^2)_d-P^2,
CC (L^1)_c-P^1-(L^2)_d-P^2-(L^3)_e-P^3 or
CC (L^1)_c-P^1-(L^2)_d-P^2-(L^3)_e-P^3-(L^4)_f-P^4;
CC P^1-P^4 = same or different (I);
CC L^1-L^4 = same or different linkers;
CC a-f = 0 or 1, provided at least one of a and b = 1,
CC a nucleic acid that encodes (Ia), an expression vector containing the

CC nucleic acid, host cells containing the vector, producing a
CC pharmaceutically active compound (B) by covalently linking at least one
CC Fc domain to at least one amino acid sequence of a selected randomized
CC (I) and any of six laminin-related peptides (Ib). The compositions are
CC used prophylactically and therapeutically in the same way as (I), e.g. to
CC inhibit platelet aggregation or angiogenesis (tumours), or to treat
CC inflammation and autoimmune diseases (e.g. rheumatoid arthritis) and many
CC different forms of osteoporosis, also for diagnosis. Attaching the
CC vehicle (especially Fc domain) to (I) increases the half-life (free (I)
CC are normally degraded very quickly in vivo). The present sequence
CC is an antagonist peptide of the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 32
ABB72945
ID ABB72945 standard; Peptide; 9 AA.
XX
AC ABB72945;
XX
DT 05-APR-2002 (first entry)
XX
DE Integrin binding peptide SEQ ID NO:450.
XX
KW Modified peptide; mimetic; Fc domain; fusion; immunoglobulin G; IgG;
KW EPO; erythropoietin; TPO; tumour necrosis factor alpha inhibitor;
KW TNF-alpha inhibitor; interleukin 1 antagonist; IL-1 antagonist; TMP;
KW TPO mimetic peptide; EPO mimetic peptide; EMP; VEGF antagonist;
KW MMP inhibitor; antiinflammatory; antitumour; immunosuppressive;
KW cytostatic; antirheumatic; antiarthritic; antidiabetic; ophthalmological;
KW antianaemic; anorectic; antiinfertility; haemostatic; dermatological;
KW neuroprotective; inflammatory disease; autoimmune disease; tumour growth;
KW cancer; rheumatoid arthritis; diabetic retinopathy; infertility; obesity;
KW sleep disorder; neurological degenerative disease; anaemia;
KW thrombocytopaenia; metastatic tumour; systemic lupus erythematosus;
KW Fanconi's syndrome.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200183525-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US14310.
XX
PR 03-MAY-2000; 2000US-0563286.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham JC, Boone TC, Gudas JM;
XX
DR WPI; 2002-130313/17.
XX
PT Novel vehicle-peptide molecule or its multimers useful for treating
PT inflammatory and autoimmune diseases, cancer, rheumatoid arthritis,
PT diabetic retinopathy, obesity, sleep disorders and infertility -
XX
PS Claim 39; Page 47; 176pp; English.
XX
CC The present invention describes a vehicle-peptide molecule (I) or its
CC multimers. (I) can have antiinflammatory, antitumour, immunosuppressive,
CC cytostatic, antirheumatic, antiarthritic, antidiabetic, ophthalmological,
CC antianaemic, anorectic, antiinfertility, haemostatic, dermatological and
CC neuroprotective activities. (I) can be used as a therapeutic or
CC prophylactic agent as well as for screening purposes. (I) is useful for
CC diagnosing diseases characterised by dysfunction of their associated
CC protein of interest, for identifying normal or abnormal proteins of
CC interest, as a part of diagnostic kit to detect the presence of their
CC proteins of interest in a biological sample. Additionally, (I) is useful
CC for treating inflammatory and autoimmune diseases, tumour growth, cancer,
CC rheumatoid arthritis, diabetic retinopathy, obesity, sleep disorders,
CC infertility, and neurological degenerative diseases. (I), comprising
CC EPO-mimetic compounds are useful for treating disorders characterised by
CC low red blood cell levels such as anaemia. The TPO-mimetic comprising
CC compounds are useful for treating conditions that involve an existing
CC megakaryocyte/platelet deficiency or an expected megakaryocyte/platelet
CC deficiency, such as thrombocytopaenia, aplastic anaemia, metastatic
CC tumour which result in thrombocytopaenia, systemic lupus erythematosus,
CC and Fanconi's syndrome. ABB72403 to ABB73426 and ABL35695 to ABL35777
CC represent amino acid and nucleic acid sequences used in the
CC exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 33
ABB72961
ID ABB72961 standard; Peptide; 9 AA.
XX
AC ABB72961;
XX
DT 05-APR-2002 (first entry)
XX
DE Integrin binding peptide SEQ ID NO:1076.
XX
KW Modified peptide; mimetic; Fc domain; fusion; immunoglobulin G; IgG;
KW EPO; erythropoietin; TPO; tumour necrosis factor alpha inhibitor;
KW TNF-alpha inhibitor; interleukin 1 antagonist; IL-1 antagonist; TMP;
KW TPO mimetic peptide; EPO mimetic peptide; EMP; VEGF antagonist;
KW MMP inhibitor; antiinflammatory; antitumour; immunosuppressive;
KW cytostatic; antirheumatic; antiarthritic; antidiabetic; ophthalmological;
KW antianaemic; anorectic; antiinfertility; haemostatic; dermatological;
KW neuroprotective; inflammatory disease; autoimmune disease; tumour growth;
KW cancer; rheumatoid arthritis; diabetic retinopathy; infertility; obesity;
KW sleep disorder; neurological degenerative disease; anaemia;
KW thrombocytopaenia; metastatic tumour; systemic lupus erythematosus;
KW Fanconi's syndrome.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200183525-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US14310.
XX
PR 03-MAY-2000; 2000US-0563286.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham JC, Boone TC, Gudas JM;
XX
DR WPI; 2002-130313/17.
XX
PT Novel vehicle-peptide molecule or its multimers useful for treating
PT inflammatory and autoimmune diseases, cancer, rheumatoid arthritis,
PT diabetic retinopathy, obesity, sleep disorders and infertility -

XX
PS Claim 39; Page 47; 176pp; English.
XX
CC The present invention describes a vehicle-peptide molecule (I) or its
CC multimers. (I) can have antiinflammatory, antitumour, immunosuppressive,
CC cytostatic, antirheumatic, antiarthritic, antidiabetic, ophthalmological,
CC antianaemic, anorectic, antiinfertility, haemostatic, dermatological and
CC neuroprotective activities. (I) can be used as a therapeutic or
CC prophylactic agent as well as for screening purposes. (I) is useful for
CC diagnosing diseases characterised by dysfunction of their associated
CC protein of interest, for identifying normal or abnormal proteins of
CC interest, as a part of diagnostic kit to detect the presence of their
CC proteins of interest in a biological sample. Additionally, (I) is useful
CC for treating inflammatory and autoimmune diseases, tumour growth, cancer,
CC rheumatoid arthritis, diabetic retinopathy, obesity, sleep disorders,
CC infertility, and neurological degenerative diseases. (I), comprising
CC EPO-mimetic compounds are useful for treating disorders characterised by
CC low red blood cell levels such as anaemia. The TPO-mimetic comprising
CC compounds are useful for treating conditions that involve an existing
CC megakaryocyte/platelet deficiency or an expected megakaryocyte/platelet
CC deficiency, such as thrombocytopaenia, aplastic anaemia, metastatic
CC tumour which result in thrombocytopaenia, systemic lupus erythematosus,
CC and Eanconi's syndrome. ABB72403 to ABB73426 and ABL35695 to ABL35777
CC represent amino acid and nucleic acid sequences used in the
CC exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 34
AAM51995
ID AAM51995 standard; peptide; 9 AA.
XX
AC AAM51995;
XX
DT 12-FEB-2002 (first entry)
XX
DE Drug targeting peptide RGD-4C.
XX
KW Targeting vector; angiogenesis associated receptor; integrin receptor;
KW alphavbeta3; cancer; heart disease; atherosclerosis; inflammation;
KW rheumatoid arthritis; gingivitis; osteoarthritis; psoriasis; cytostatic;
KW antiinflammatory; antiarteriosclerotic; antirheumatic; antiarthritic;
KW anti-HIV; osteopathic; antipsoriatic; antidiabetic; opthalmological;
KW dermatological; antiulcer; ulcerative colitis.
XX
OS Synthetic.
XX
PN WO200177145-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-NO00146.
XX
PR 12-APR-2000; 2000GB-0009042.
PR 12-OCT-2000; 2000GB-0025070.
XX
PA (NYCO-) NYCOMED IMAGING AS.
XX
PI Cuthbertson A, Indrevoll B;
XX
DR WPI; 2002-049128/06.
XX
PT New peptide-based compounds useful as a diagnostic imaging agent
PT comprises affinity for integrin receptors -
XX
PS Disclosure; Page 5; 63pp; English.
XX
CC The present invention relates to peptide-based compounds which have
CC affinity for integrin receptors, particularly the integrin alphavbeta3
CC receptor. These can be used in the manufacture of a contrast medium for
CC use as a diagnostic imaging agent for generating images of a human or
CC non-human animal for treating cancer or a related disease, and as
CC targeting vectors that bind to receptors associated with angiogenesis.
CC Diseases and indications associated with angiogenesis include
CC arteriovenous malformations, astrocytomas, choriocarcinomas,
CC glioblastomas, gliomas, hemangiomas (childhood capillary), hepatomas,
CC hyperplastic endometrium, ischaemic myocardium, kaposi sarcoma, macular
CC degeneration, melanoma, neuroblastomas, occluding peripheral artery
CC disease, osteoarthritis, psoriasis, retinopathy (diabetic,
CC proliferative), scleroderma, seminomas, rheumatoid arthritis,
CC atherosclerosis, inflammation, gingivitis and ulcerative colitis. The
CC present sequence is a peptide which can be used in a compound of the
CC invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 23; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 35
AAB21716
ID AAB21716 standard; Peptide; 10 AA.
XX
AC AAB21716;
XX
DT 22-MAR-2001 (first entry)
XX
DE Human tumour-homing peptide #4.
XX
KW Cytostatic; homing pro-apoptotic conjugate; tumour; antimicrobial;
KW breast; prostate; melanoma; cancer; Kaposi's sarcoma; human; cyclic.
XX
OS Homo sapiens.
XX
PN WO200042973-A2.
XX
PD 27-JUL-2000.
XX
PF 21-JAN-2000; 2000WO-US01602.
XX
PR 22-JAN-1999; 99US-0235902.
XX
PA (BURN-) BURNHAM INST.
XX
PI Ellerby HM, Bredesen DE, Pasqualini R, Ruoslahti EI;
XX
DR WPI; 2000-499174/44.
XX
PT Homing pro-apoptotic conjugate comprising a tumor homing molecule that
PT selectively homes to a mammalian cell type or tissue linked to an
PT antimicrobial peptide, useful for the treatment of prostate cancer -
XX
PS Example 2; Page 79; 118pp; English.
XX
CC The present invention relates to homing pro-apoptotic conjugates,
CC comprising of a tumour homing molecule that selectively homes to a
CC mammalian cell type or tissue, linked to an antimicrobial peptide. The
CC homing pro-apoptotic conjugates are selectively internalised by the
CC mammalian cell type or tissue and exhibits high toxicity, especially to
CC angiogenic vasculature. The antimicrobial peptide has low mammalian cell
CC toxicity when not linked to the tumor homing molecule. The conjugates are

```
CC   useful for the treatment of cancer e.g. Kaposi's sarcoma, breast and
CC   prostate cancer or melanoma. The present sequence is a'homing peptide
CC   isolated in the present invention, which can be conjugated to an
CC   antimicrobial peptide to make the homing pro-apoptotic conjugates of the
CC   present invention.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 65;  DB 21;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 36
AAE08561
ID   AAE08561 standard; peptide; 10 AA.
XX
AC   AAE08561;
XX
DT   15-NOV-2001  (first entry)
XX
DE   RGD-4C peptide motif.
XX
KW   RGD-4C peptide motif; photodynamic therapy; PDT; opthalmological;
KW   cytostatic; antiinflammatory; choroidal neovasculature; CNV; choroiditis;
KW   age-related macular degeneration; AMD; pathologic myopia; angioid streak;
KW   inflammatory disease; occular histoplasmosis syndrome; choroidal rupture;
KW   choroid nevi; idiopathic disorder.
XX
OS   Synthetic.
XX
PN   WO200158240-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04231.
XX
PR   10-FEB-2000; 2000US-0181641.
XX
PA   (MASS-) MASSACHUSETTS EYE & EAR INFIRMARY.
XX
PI   Miller JW,  Gragoudas ES,  Renno RZ;
XX
DR   WPI; 2001-522421/57.
XX
PT   Treating unwanted choroidal neovascularization, comprises administering
PT   a photosensitizer that localizes in the neovasculature and irradiating
PT   the neovasculature with laser light to occlude the neovasculature -
XX
PS   Example 5; Page 30; 46pp; English.
XX
CC   The invention relates to a method for the photodynamic therapy (PDT) of
CC   occular conditions characterised by the presence of unwanted choroidal
CC   neovasculature (CNV). The method comprises administering a
CC   photosensitiser that localises in the neovasculature and irradiating the
CC   neovasculature with laser light so that the light is absorbed by the
CC   photosensitiser so as to occlude the neovasculature. The method is used
CC   for treating unwanted choroidal neovasculature, particularly of
CC   endothelial cells and ameliorates the symptoms of age-related macular
CC   degeneration (AMD), occular histoplasmosis syndrome, pathologic myopia,
CC   angioid streaks, idiopathic disorders, choroiditis, choroidal rupture,
CC   overlying choroid nevi and inflammatory diseases. The present sequence is
CC   a peptide motif also known as RGD-4C. This peptide selectively binds to
CC   human alpha-v integrins and accumulates in tumour neovasculature more
CC   effectively than other angiogenesis targetting peptides.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 65;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 37
ABB76444
ID   ABB76444 standard; Peptide; 10 AA.
XX
AC   ABB76444;
XX
DT   02-SEP-2002  (first entry)
XX
DE   RGD-4C Peptide with integrin binding affinity.
XX
KW   Integrin; adenovirus; vector; cancer; tumour; gene therapy.
XX
OS   Synthetic.
XX
PN   US2002058045-A1.
XX
PD   16-MAY-2002.
XX
PF   01-MAY-2001; 2001US-0845160.
XX
PR   31-MAY-2000; 2000JP-0161577.
PR   27-APR-2001; 2001JP-0131688.
XX
PA   (NAHE-) NAT INST HEALTH SCI.
XX
PI   Mizuguchi H,  Hayakawa T;
XX
DR   WPI; 2002-499507/53.
DR   N-PSDB; ABN83753.
XX
PT   A method for constructing a fiber-mutant adenovirus vector in which a
PT   foreign peptide is introduced by a simple system into the fiber HI
PT   loop-coding gene of adenovirus providing a more effective means of
PT   introducing foreign peptides -
XX
PS   Example 1; Page 4; 13pp; English.
XX
CC   The present sequence is that of an RGD-4C peptide having binding
CC   affinity to cell surface integrins.  DNA encoding a foreign peptide,
CC   such as the present sequence, may be introduced into a fibre HI
CC   loop-coding gene sequence using a method of the invention for
CC   construction of fibre-mutant adenovirus vectors.  The fibre HI loop
CC   comprises amino acids 537-549 of a fibre molecule.  Insertion of a
CC   foreign peptide into this region does not affect the formation of
CC   trimers by the fibre molecules.  A claimed method for constructing
CC   a fibre-mutant adenovirus vector comprises inserting a unique
CC   restriction enzyme recognition sequence, especially Csp45I and/or
CC   ClaI, into the fibre HI loop-encoding gene, and introducing a
CC   foreign peptide-encoding DNA into the gene sequence.  The peptide
CC   preferably includes the tripeptide Arg-Gly-Asp (RGD) or Asn-Gly-Arg
CC   (NGR) and has tropism for tumour vascular endothelial cells.
CC   Selection of RGD-4C as the foreign peptide can improve the
CC   efficiency of gene introduction not only to adenovirus-sensitive
CC   cells but also to e.g. CHO cells, respiratory epidermic cells,
CC   smooth muscle cells, vascular endothelial cells, T-cells, macrophages,
CC   haematopoietic stem cells, dendritic cells and cancer cells which
CC   are CAR-negative but which express integrins on their surfaces, e.g.
CC   human glioma LN444 cells.  A synthetic oligonucleotide encoding the
CC   peptide and including Csp45I and ClaI restriction sites can be
CC   ligated directly into the HI loop-coding gene sequence digested with
CC   the corresponding restriction enzymes.  The fiber-mutant adenovirus
CC   vector has high gene transfer efficiency.
XX
SQ   Sequence   10 AA;
```

```
  Query Match           100.0%;  Score 65;  DB 23;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 38
ABB08397
ID   ABB08397 standard; Peptide; 10 AA.
XX
AC   ABB08397;
XX
DT   18-JUN-2002  (first entry)
XX
DE   cyclic RGD consensus sequence.
XX
KW   Adenovirus; vector; targeted adenovirus; fibre protein; CAR;
KW   coxsackievirus-adenovirus receptor; gene therapy; diabetes; haemophilia;
KW   angiogenesis; atherosclerosis; cholesterol.
XX
OS   Human adenovirus type 5.
XX
PN   WO200192299-A2.
XX
PD   06-DEC-2001.
XX
PF   01-JUN-2001; 2001WO-EP06286.
XX
PR   02-JUN-2000; 2000US-0585344.
PR   22-FEB-2001; 2001US-270555P.
XX
PA   (NOVS ) NOVARTIS AG.
PA   (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI   Jakubczak JL,  Rollence ML,  Stewart DA,  Stevenson SC,  Hallenbeck PL;
XX
DR   WPI; 2002-075460/10.
XX
PT   Mutated adenoviral fiber protein in which an amino acid in the CD loop
PT   of the wild-type protein has been mutated to reduce the ability of the
PT   protein to bind to coxsackievirus-adenovirus receptor, useful for
PT   therapeutic purposes -
XX
PS   Disclosure; Page 144; 144pp; English.
XX
CC   The invention relates to a mutated adenoviral fibre protein in which at
CC   least one amino acid in the CD loop of a wild-type fibre protein of an
CC   adenovirus from subgroup C, D or E, or the long wild-type fibre of an
CC   adenovirus from subgroup F, has been mutated to reduce or substantially
CC   eliminate the ability of the fibre protein to bind to the
CC   coxsackievirus-adenovirus receptor (CAR). Adenoviral particles of the
CC   invention are useful for expressing a heterologous polynucleotide in a
CC   cell, preferably a mammalian cell such as a primate cell or a human
CC   cell. They are also useful for enhancing adenoviral-mediated gene
CC   transfer to and expression in hepatocytes. They are also useful to
CC   genetically engineer a cell to express a protein that it otherwise does
CC   not express or does not express in sufficient quantities, and in gene
CC   therapy for treating diabetes, haemophilia, angiogenesis, and diseases
CC   related to increased cholesterol or triglyceride blood levels in a
CC   patient such as atherosclerosis. The current sequence represents the
CC   cyclic RGD peptide consensus sequence.
XX
SQ   Sequence   10 AA;

  Query Match           100.0%;  Score 65;  DB 23;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 39
AAU74979
ID   AAU74979 standard; Peptide; 10 AA.
XX
AC   AAU74979;
XX
DT   09-APR-2002  (first entry)
XX
DE   Transfection associated, integrin binding peptide #3.
XX
KW   Cyclic; virucide; human immunodeficiency virus; HIV; cytostatic;
KW   ophthalmological; vasotropic; vaccine; gene therapy; transfection;
KW   cystic fibrosis; asthma; cancer; leukaemia; glaucoma; gene vaccination;
KW   anti-sense therapy; eye disease; corneal organ transplant; integrin;
KW   transfection; restenosis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Region          4..6
FT                   /note= "Conserved RGD sequence for high affinity
FT                         binding to integrins"
XX
PN   WO200192543-A2.
XX
PD   06-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-GB02396.
XX
PR   30-MAY-2000; 2000GB-0013089.
PR   30-MAY-2000; 2000GB-0013090.
PR   01-MAY-2001; 2001US-287410P.
XX
PA   (ICHI-) ICH PRODN LTD.
XX
PI   Hart SL;
XX
DR   WPI; 2002-114355/15.
XX
PT   Transfecting confluent cells with nucleic acid for gene therapy or gene
PT   vaccination, comprises contacting the cells with a receptor-targeted
PT   vector having the nucleic acid and an agent that disrupts cell-cell
PT   junctions -
XX
PS   Claim 17; Page 17; 111pp; English.
XX
CC   The invention describes transfecting (I) confluent cells or other slowly
CC   dividing or non-dividing cells that are in contact with each other, with
CC   a nucleic acid. The method comprises contacting the cells with a
CC   receptor-targeted vector comprising the nucleic acid, and an agent that
CC   disrupts cell-cell junctions under conditions suitable to effect
CC   transfection. (I) is useful for transfecting bronchial and lung
CC   epithelium for gene therapy for cystic fibrosis, asthma and also various
CC   cancers and viral infections e.g. human immunodeficiency virus (HIV)
CC   infection. Haematopoietic cell transfection enables gene therapy, gene
CC   vaccination and anti-sense therapy of diseases involving haematopoietic
CC   cells, including leukaemia and bone marrow stem cell disorders.
CC   Transfection of corneal endothelium is useful for treatment of eye
CC   disease affecting the cornea or corneal organ transplants, for e.g. in
CC   glaucoma. A gene preventing cell proliferation in blood vessel walls is
CC   introduced using an integrin targeting transfection vector complex (II)
CC   to reduce restenosis. (II) is useful for intracellular transport and
CC   delivery of anti-sense oligonucleotides, which enables antiviral and
CC   cancer therapy and is effective in transporting large DNA molecules.
CC   This sequence represents a peptide that will permit cyclisation by
CC   disulfide bond formation. It contains the conserved RGD amino acid
CC   sequence that binds to integrins with high affinity, allowing the nucleic
CC   acid to pass into the cell, described in the method of the invention.
XX
SQ   Sequence   10 AA;
```

```
  Query Match             100.0%;  Score 65;  DB 23;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 40
AAE17110
ID   AAE17110 standard; peptide; 10 AA.
XX
AC   AAE17110;
XX
DT   18-APR-2002  (first entry)
XX
DE   Cyclic integrin-binding peptide #12.
XX
KW   Integrin binding component; polycationic nucleic acid-binding component;
KW   lipid component; prophylaxis; immunisation; antisense therapy; asthma;
KW   cystic fibrosis; cancer; viral infection; human immunodeficiency virus;
KW   HIV infection; vaccine; neuroblastoma; bone marrow stem cell disorder;
KW   leukaemia; adjuvant immunotherapy; eye disease; glaucoma; restenosis;
KW   integrin-binding peptide; cyclic.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Domain          4..6
FT                   /note= "Arginine-glycine-aspartic acid (RGD) domain"
XX
PN   WO200192542-A2.
XX
PD   06-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-GB02394.
XX
PR   30-MAY-2000; 2000GB-0013089.
PR   30-MAY-2000; 2000GB-0013090.
PR   01-MAY-2001; 2001US-287410P.
XX
PA   (ICHI-) ICH PRODN LTD.
XX
PI   Hart SL;
XX
DR   WPI; 2002-139612/18.
XX
PT   Complex for transfecting cell with nucleic acid for treating,
PT   preventing conditions caused by deficiency in a gene in humans, has
PT   nucleic acid, lipid, integrin binding and polycationic nucleic
PT   acid-binding components
XX
PS   Claim 15; Page 78; 108pp; English.
XX
CC   The invention relates to integrin-targetting vectors having enhanced
CC   transfection activity. The vector complex comprises a nucleic acid,
CC   an integrin binding component, a polycationic nucleic acid-binding
CC   component and a lipid component. The integrin binding component
CC   comprises an integrin-binding element and a spacer element. Complex
CC   of the invention is useful for transfecting cells in vitro or in
CC   vivo with a nucleic acid, for treatment or prophylaxis of a condition
CC   caused in human or a non-human animal by a defect and/or a deficiency
CC   in a gene, immunisation and antisense therapy of a human or a non-human
CC   animal. It is useful for transfecting bronchial and lung epithelium and
CC   corneal endothelium for gene therapy for cystic fibrosis, asthma and
CC   also various cancers and viral infections for example human
CC   immunodeficiency virus (HIV) infection. It is also useful as a vaccine
CC   or for therapy of neuroblastoma and the effective transfection of
CC   primary smooth muscle cells, cardiac myocytes and haematopoietic cells.
CC   Haematopoietic cell transfection enables gene therapy, gene vaccination
CC   and antisense therapy of diseases involving haematopoietic cells,
CC   including leukaemia and bone marrow stem cell disorders, for example
CC   transfection of a cytokine gene may be used for adjuvant immunotherapy.
CC   Transfection of corneal endothelium is useful for treatment of eye
CC   disease affecting the cornea or corneal organ transplants, for example
CC   in glaucoma. A gene that prevents proliferation of cells in blood
CC   vessel walls is introduced using complex of the invention to reduce
CC   restenosis. The present sequence is cyclic integrin-binding peptide
CC   of the invention.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 65;  DB 23;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.037;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 41
AAR76194
ID   AAR76194 standard; peptide; 11 AA.
XX
AC   AAR76194;
XX
DT   24-JAN-1996  (first entry)
XX
DE   Integrin binding peptide #3.
XX
KW   High affinity; integrin binding peptide; alpha5/beta1; alphav/beta5;
KW   alphav/beta3; RGD; stable configuration; wound healing;
KW   osteoclast attachemnt; bone; angiogenesis; metastasis; tumour;
KW   smooth muscle cell migration.
XX
OS   Synthetic.
XX
PN   WO9514714-A1.
XX
PD   01-JUN-1995.
XX
PF   22-NOV-1994;   94WO-US13542.
XX
PR   04-AUG-1994;   94US-0286861.
PR   24-NOV-1993;   93US-0158001.
XX
PA   (LJOL-) LA JOLLA CANCER RES FOUND.
XX
PI   Koivunen E,  Ruoslahti E;
XX
DR   WPI; 1995-206899/27.
XX
PT   High affinity integrin binding peptides - can be used to attach
PT   cells to a substrate, inhibit the attachment of osteoclasts to bone,
PT   promote wound healing, inhibit angiogenesis, metastasis of tumours
PT   and migration of smooth muscle cells
XX
PS   Example 1; Page 23; 86pp; English.
XX
CC   The sequences given in AAR76185-200 and AAR79073-94 are high affinity
CC   integrin binding peptides which bind to various integrins.  Peptides
CC   which bind to alpha5/beta1 integrins contain the motifs given in
CC   AAR76185-86 and peptides which bind to alphav/beta5 and alphav/beta3
CC   integrins contain the motif given in AAR76187.  Alphav/beta5 integrins
CC   are also bound by RGD containing peptides.  These peptides assume a
CC   conformationally stabilised configuration which is due to the
CC   formation of a disulphide bond, a peptide bond or a lactam bond.
CC   These peptides may be used for isolating the complementary integrin
CC   from a sample mixture by contacting them under ionic conditions to
CC   allow binding of the integrin to the peptide and then separating the
CC   integrin from the peptide.  They can be used for attaching cells to
CC   a substrate, by binding them to the substrate with the cell.  The
CC   peptides promote wound healing when applied locally and inhibit the
```

```
CC   attachment of osteoclasts to bone.  They inhibit angiogenesis,
CC   metastasis of tumours and migration of smooth muscle cells.
XX
SQ   Sequence  11 AA;

  Query Match             100.0%;  Score 65;  DB 16;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 42
AAW11184
ID   AAW11184 standard; Peptide; 11 AA.
XX
AC   AAW11184;
XX
DT   15-JAN-1998  (first entry)
XX
DE   Free peptide.
XX
KW   Breast tumour homing peptide; cancer; in vivo panning; screening;
KW   phage display; drug delivery.
XX
OS   Synthetic.
XX
PN   WO9710507-A1.
XX
PD   20-MAR-1997.
XX
PF   10-SEP-1996;   96WO-US14600.
XX
PR   11-SEP-1995;   95US-0526710.
PR   11-SEP-1995;   95US-0526708.
XX
PA   (LJOL-) LA JOLLA CANCER RES FOUND.
XX
PI   Pasqualini R,  Ruoslahti E;
XX
DR   WPI; 1997-202359/18.
XX
PT   Obtaining compound that homes to selected organ or tissue - by in
PT   vivo panning method, specifically to identify brain, kidney,
PT   angiogenic vasculature or tumour tissue homing peptide(s)
XX
PS   Example 3; Page 64; 75pp; English.
XX
CC   Coinjection of this synthetic free peptide with phage expressing an
CC   RGD-containing breast tumour-homing peptide reduced the amount of
CC   phage expressing the tumour homing peptide in the tumour by about
CC   10-fold.  Tumour homing peptides (see AAW13412-52) have been
CC   selected using a novel in vivo panning method and are useful for
CC   delivering e.g. toxins, drugs and labels to selected organs or
CC   tissues.
XX
SQ   Sequence   11 AA;

  Query Match             100.0%;  Score 65;  DB 18;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 43
AAW60299
ID   AAW60299 standard; peptide; 11 AA.
XX
AC   AAW60299;
XX
DT   24-AUG-1998  (first entry)
XX
DE   Tumour homing peptide of the invention.
XX
KW   Tumour homing peptide; in vivo panning;
KW   alpha-V-containing integrin binding motif; tumour.
XX
OS   Synthetic.
XX
PN   WO9810795-A2.
XX
PD   19-MAR-1998.
XX
PF   10-SEP-1997;   97WO-US16086.
XX
PR   10-SEP-1996;   96US-0710067.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Pasqualini R,  Ruoslahti E;
XX
DR   WPI; 1998-207151/18.
XX
PT   Tumour homing molecules and their conjugates - useful for, e g.
PT   directing linked moiety to tumour containing angiogenic vasculature
XX
PS   Example 3; Page 75; 105pp; English.
XX
CC   The present peptide represents a tumour homing peptide, and is produced
CC   by in vivo panning. The peptide contains the motif Arg-Gly-Asp (RGD). The
CC   in vivo panning comprises administering a library of diverse peptides to
CC   a subject having a tumour, collecting a sample of the tumour, identifying
CC   a peptide that homes to the tumour, collecting a sample of normal tissue
CC   corresponding to the tumour, and determining that the peptide that homes
CC   to the tumour is not present in the normal tissue. The tumour homing
CC   peptide can be linked to a moiety (e.g. doxorubicin), and used to direct
CC   the moiety to a tumour.
XX
SQ   Sequence   11 AA;

  Query Match             100.0%;  Score 65;  DB 19;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 44
AAW57199
ID   AAW57199 standard; peptide; 11 AA.
XX
AC   AAW57199;
XX
DT   05-AUG-1998  (first entry)
XX
DE   RGD-containing peptide SEQ ID NO:17 from WO9812226 Example 9.
XX
KW   Fibronectin; superfibronectin; first type III repeat unit; IIIl;
KW   angiogenesis; psoriasis; rheumatoid arthritis; cancer; tumour.
XX
OS   Synthetic.
XX
PN   WO9812226-A1.
XX
PD   26-MAR-1998.
XX
PF   12-SEP-1997;   97WO-US16344.
XX
PR   20-SEP-1996;   96US-0717169.
```

XX
PA (BURN-) BURNHAM INST.
XX
PI Pasqualini R, Ruoslahti E;
XX
DR WPI; 1998-217210/19.
XX
PT Inhibition of angiogenesis by superfibronectin - useful for
PT treating, e.g. psoriasis, rheumatoid arthritis and various cancers
XX
PS Example 9; Page 63; 105pp; English.
XX
CC A method has been developed of ameliorating cancer, or inhibiting
CC angiogenesis, in a subject. The method comprises administering a
CC superfibronectin or a superfibronectin-generating compound. The
CC present sequence represents a peptide used in an example of the
CC present invention. The method can be used to treat cancer, ocular
CC neovascularisation, diabetic retinopathy, haemangioma, rheumatoid
CC arthritis, psoriasis, granuloma, and granulation tissue. The cancer
CC treated by the method can comprise a solid tumour, such as a melanoma,
CC osteosarcoma, ovarian, vascular or epithelial cell tumour. When it is in
CC an epithelial cell tumour, it is preferably a colon carcinoma, breast
CC carcinoma, or ovarian carcinoma. When it is a vascular cell tumour, it is
CC selected from haemangiomas, Kaposi's sarcoma, lymphangioma, glomangioma,
CC angiosarcoma, or haemangioendothelioma. The method inhibits or prevents
CC a tumour cell metastatis in a subject especially inhibits the tumour
CC cell migration, attachment, or inhibiting growth of a tumour cell in a
CC subject having a pathology with an angioproliferative component, where
CC the inhibition causes regression of the pathology. The route of
CC administration is intravenous, intramuscular, intradermal, subcutaneous,
CC intracranial, intracerebrospinal, epidural, topical or oral
CC administration.
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 65; DB 19; Length 11;
Best Local Similarity 100.0%; Pred. No. 0.04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 2 CDCRGDCFC 10

RESULT 45
AAY58860
ID AAY58860 standard; Peptide; 11 AA.
XX
AC AAY58860;
XX
DT 08-MAY-2000 (first entry)
XX
DE Membrane binding element used in anti-angiogenic polypeptide.
XX
KW Anti-angiogenic; angiogenesis inhibitor; membrane binding element;
KW cancer; tumour; therapy.
XX
OS Synthetic.
XX
PN WO200004052-A2.
XX
PD 27-JAN-2000.
XX
PF 16-JUL-1999; 99WO-GB02292.
XX
PR 16-JUL-1998; 98GB-0015505.
XX
PA (ADPR-) ADPROTECH PLC.
XX
PI Smith RAG, Bright JR, Steward M, Cox VF;
XX
DR WPI; 2000-182406/16.
XX
PT New soluble derivative of anti-angiogenic polypeptide useful for
PT treatment of primary or secondary cancers, contains covalently attached
PT membrane-binding elements for targeting -
XX
PS Claim 13; Page 32; 36pp; English.
XX
CC The present sequence is a claimed example of a disulfide-constrained
CC peptide that can be used as a membrane binding element (MBE) in
CC novel soluble derivatives (I) of anti-angiogenic polypeptides of
CC the invention. The peptide was identified using a phage display
CC technique. (I) comprise 2 or more heterologous MBEs with low
CC membrane affinity that are covalently attached to a soluble
CC anti-angiogenic polypeptide such as a non-catalytic region of human
CC plasminogen, fragments of related proteins containing kringle
CC domains, fragments of collagen or prolactin, neutralising
CC antibodies against receptors for angiogenic mediators, and
CC antagonists of integrins involved in angiogenesis. The MBEs
CC interact independently with thermodynamic additivity, with
CC components of the vascular endothelium. (I) provide targeted
CC delivery of the anti-angiogenic polypeptide to cell membranes and
CC sites of active angiogenesis, particularly the vascular endothelium,
CC and therefore increase the local concentration and reduce the risk
CC of adverse effects on normal processes elsewhere in the vasculature.
CC They are used in a claimed method of treatment of primary or
CC secondary tumour.
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 65; DB 21; Length 11;
Best Local Similarity 100.0%; Pred. No. 0.04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 2 CDCRGDCFC 10

RESULT 46
AAY54273
ID AAY54273 standard; Peptide; 11 AA.
XX
AC AAY54273;
XX
DT 06-APR-2000 (first entry)
XX
DE Peptide inhibiting attachment of env protein to AlphaVbeta3 integrin.
XX
KW Envelope protein; mutant; retrovirus; surface protein shedding;
KW envelope protein stability; gene therapy; drug therapy; cancer; cyclic;
KW adenosine deaminase deficiency; thalassemia; hemophilia; diabetes;
KW alpha-anti trypsin deficiency; brain disorder; neural disorder;
KW phenylketonuria; growth disorder; heart disease; immune disease.
XX
OS Synthetic.
XX
PN WO9960110-A2.
XX
PD 25-NOV-1999.
XX
PF 20-MAY-1999; 99WO-US11155.
XX
PR 20-MAY-1998; 98US-0086149.
XX
PA (UYTE-) UNIV TENNESSEE RES CORP.
XX
PI Albritton LM, Zavorotinskaya T;
XX
DR WPI; 2000-116313/10.
XX
PT Novel isolated nucleic acid, useful for gene therapy -
XX
PS Example 10; Page 83; 190pp; English.
XX

CC The specification describes mutant retrovirus envelope (env) proteins.
CC The envelope protein coding sequence can be mutated to encode a mutant
CC envelope protein with a substitution of one or more amino acids in at
CC least one motif of the retrovirus protein. The mutant protein fragment
CC allows for decreased shedding of the surface protein by suppressing
CC precursor cleavage and increase envelope stability and fusion of
CC retroviruses with cell membranes, while maintaining mutant envelope
CC protein incorporation into a virion, and viral titers of about two orders
CC of magnitude within that observed for wild-type retrovirus when the
CC protein or fragment is expressed on the surface of a retroviral particle.
CC The proteins have an increased ability to penetrate targets, typically
CC cells and a correspondingly increased ability to deliver nucleic acids or
CC drugs. The mutated nucleic acid is useful for gene and drug therapy,
CC especially as drug delivery vehicles. The retrovirus particles can be
CC utilized to transduce eukaryotic cells. The transduced cells are useful
CC in the treatment of cancer in a human. Other diseases contemplated for
CC treatment include adenosine deaminase deficiency (ADA), thalassemia,
CC hemophilia, diabetes, alpha-anti trypsin deficiency, brain and neural
CC disorders, phenylketonuria, growth disorders, heart diseases and immune
CC diseases. The present sequence was used to inhibit attachment of
CC the envelope protein to AlphaVbeta3 integrin, in the course of the
CC invention.
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 65; DB 21; Length 11;
Best Local Similarity 100.0%; Pred. No. 0.04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 2 CDCRGDCFC 10

RESULT 47
AAE06294
ID AAE06294 standard; peptide; 11 AA.
XX
AC AAE06294;
XX
DT 25-SEP-2001 (first entry)
XX
DE Double cyclic homing domain used to construct pro-apoptotic conjugates.
XX
KW Chimeric prostate-homing pro-apoptotic peptide; prostate-homing peptide;
KW antimicrobial peptide; prostate cancer; tumour homing molecule;
KW cytostatic.
XX
OS Synthetic.
XX
PN WO200153342-A1.
XX
PD 26-JUL-2001.
XX
PF 16-JAN-2001; 2001WO-US01362.
XX
PR 21-JAN-2000; 2000US-0489582.
XX
PA (BURN-) BURNHAM INST.
XX
PI Ruoslahti EI, Pasqualini R, Arap W, Bredesen DE, Ellerby HM;
XX
DR WPI; 2001-451901/48.
XX
PT Novel chimeric prostate-homing pro-apoptotic peptide, used to treat
PT prostate cancer, comprises a prostate-homing peptide linked to an
PT antimicrobial peptide -
XX
PS Example 2; Page 78; 176pp; English.
XX
CC The patent discloses novel chimeric prostate-homing pro-apoptotic
CC peptide which comprises a prostate-homing peptide linked to an
CC antimicrobial peptide, where the chimeric peptide is selectively
CC internalised by and exhibits high toxicity to prostate tissue and
CC where the antimicrobial peptide has low mammalian cell toxicity when
CC not linked to prostate-homing peptide. The chimeric peptide is used
CC to direct an antimicrobial peptide in vivo to a prostate cancer, to
CC induce selective toxicity in vivo in a prostate cancer, and to treat
CC a patient with prostate cancer. The present peptide sequence is a
CC double cyclic homing domain having tumour homing properties. This
CC sequence is used to construct chimeric pro-apoptotic conjugates.
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 65; DB 22; Length 11;
Best Local Similarity 100.0%; Pred. No. 0.04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 2 CDCRGDCFC 10

RESULT 48
AAO21743
ID AAO21743 standard; Peptide; 11 AA.
XX
AC AAO21743;
XX
DT 13-SEP-2002 (first entry)
XX
DE Procytotoxin targeting peptide sequence.
XX
KW Cytotoxic; cytostatic; procytotoxin; inactivator; protease; cancer;
KW ovary; prostate; breast; skin; lung; pancreas; target.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /note= "This residue is modified by biotin"
FT Modified-site 11
FT /note= "This residue is modified by (RGD-4C)alpha v-
FT beta 3 integrin targeting peptide or biotin-anti-
FT fibronectin ED-B antibody"
XX
PN US2002045736-A1.
XX
PD 18-APR-2002.
XX
PF 27-AUG-2001; 2001US-0938623.
XX
PR 09-MAY-2001; 2001US-0851422.
XX
PA (YUXX/) YU X.
PA (WAGN/) WAGNER T E.
XX
PI Yu X, Wagner TE;
XX
DR WPI; 2002-507251/54.
XX
PT A new procytotoxin useful in the treatment of cancer of e.g. prostate,
PT ovary, breast, or skin, has a cytotoxic peptide bound to an inactivator
PT via a peptide bond cleavable by a specific protease -
XX
PS Example 5; Page 12; 21pp; English.
XX
CC The invention relates to a procytotoxin comprising a cytotoxic peptide
CC bound to an inactivator via a peptide bond, where the peptide bond is
CC susceptible to cleavage by a targeting specific protease. The
CC procytotoxin is used to treat cancer, particularly of the prostate,
CC ovary, breast, skin, lung or pancreas. This sequence represents a
CC procytotoxin targeting peptide sequence relating to the invention.
XX
SQ Sequence 11 AA;

```
  Query Match           100.0%;  Score 65;  DB 23;  Length 11;
  Best Local Similarity  100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 49
AAU97577
ID   AAU97577 standard; Peptide; 11 AA.
XX
AC   AAU97577;
XX
DT   13-AUG-2002  (first entry)
XX
DE   Synthetic peptide #1.
XX
KW   Angiogenesis; malignant disease; heart disease; atherosclerosis;
KW   inflammation-related disease; rheumatoid arthritis; Kaposi's Sarcoma;
KW   integrin alphavbeta3.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  2..4
FT   Disulfide-bond  8..10
XX
PN   WO200226776-A2.
XX
PD   04-APR-2002.
XX
PF   25-SEP-2001; 2001WO-NO00390.
XX
PR   26-SEP-2000; 2000NO-0004795.
XX
PA   (NYCO-) NYCOMED IMAGING AS.
XX
PI   Cuthbertson A;
XX
DR   WPI; 2002-452272/48.
XX
PT   Novel peptide based compound useful for diagnosing and treating
PT   malignant, heart and inflammation related diseases e.g.,
PT   atherosclerosis, Kaposi's sarcoma -
XX
PS   Example 1; Page 30; 39pp; English.
XX
CC   The present invention relates to a new peptide based compound (of
CC   general formula) comprising a linear arginine-glycine-aspartic acid (RGD)
CC   sequence flanked by two discrete bridges (one or both of the bridges is a
CC   disulfide bridge). The invention is useful for monitoring the effect of
CC   treatment by administering the peptide to a human or non-human animal
CC   subject with a drug to combat a condition associated with angiogenesis
CC   and detecting the uptake of the peptide during and after treatment with
CC   the drug. The invention is also useful for manufacturing the therapeutic
CC   compositions and in therapeutic or prophylactic treatment of human or
CC   non-human animal body and/or for manufacturing a contrast medium and
CC   administering the contrast medium to an animate subject for use in
CC   diagnosis and generating an image of at least a part of the subject.
CC   The peptide of the invention is useful for diagnosing malignant diseases,
CC   heart diseases, inflammation-related disease such as atherosclerosis,
CC   rheumatoid arthritis and Kaposi's Sarcoma. The invention is also useful
CC   as vector with affinity for integrin alphavbeta3. The present amino acid
CC   sequence represents one of a collection (AAU97577-AUU97581) of synthetic
CC   peptides of the invention, as described above.
XX
SQ   Sequence   11 AA;

  Query Match           100.0%;  Score 65;  DB 23;  Length 11;
  Best Local Similarity  100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 50
AAU87024
ID   AAU87024 standard; Peptide; 11 AA.
XX
AC   AAU87024;
XX
DT   05-JUN-2002  (first entry)
XX
DE   Targetting ligand associated motif sequence.
XX
KW   Modified virus; adenovirus; cytostatic; gene therapy; tumour cell;
KW   proliferating cell; cancer; vascular disease; inflammatory disease;
KW   infectious disease; human immunodeficiency virus; HIV.
XX
OS   Synthetic.
XX
PN   WO200208263-A2.
XX
PD   31-JAN-2002.
XX
PF   19-JUL-2001; 2001WO-GB03252.
XX
PR   19-JUL-2000; 2000GB-0017720.
XX
PA   (GOTA-) GOT-A-GENE AB.
PA   (GARD/) GARDNER R.
XX
PI   Lindholm L,  Nord AK,  Boulanger PA;
XX
DR   WPI; 2002-217049/27.
XX
PT   Novel modified virus comprising non-native polypeptides with stable
PT   conformation and having framework moieties containing binding moieties
PT   which confer upon the virus, an altered tropism, useful in gene therapy
PT   -
XX
PS   Example 11; Page 69; 163pp; English.
XX
CC   The invention describes a modified virus comprising non-native
CC   polypeptides which has framework moieties each containing binding
CC   moieties, where the virus has altered tropism conferred by the binding
CC   moieties. The polypeptides can be expressed in the cytoplasm and nucleus
CC   of mammalian host cell in conformation which is maintained in absence of
CC   ligands for the binding moieties, where the conformation allows the
CC   binding moiety subsequently to bind with the ligand. The modified virus
CC   is useful in therapy for the preparation of a medicament for treating
CC   tumour cells, cancer, proliferating cells, vascular diseases,
CC   inflammatory diseases and infectious diseases such as Human
CC   immunodeficiency virus (HIV). The altered tropisms allow the virus to be
CC   used in treatment of disease in human or animal subjects, either by in
CC   vivo treatment of, or ex vivo treatment of cells of, the subject
CC   requiring treatment. The problems associated with the expression of
CC   functional non-native viral components in the nucleus and cytosol of
CC   host cells is solved by using the modified virus for the purpose. This
CC   sequence represents a peptide sequence used in the creation of the
CC   modified virus containing non-native polypeptides.
XX
SQ   Sequence   11 AA;

  Query Match           100.0%;  Score 65;  DB 23;  Length 11;
  Best Local Similarity  100.0%;  Pred. No. 0.04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10
```

RESULT 51
AAW56052
ID AAW56052 standard; peptide; 12 AA.
XX
AC AAW56052;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 79.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;
KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX
DR WPI; 1998-169169/15.
XX
PT Chimeric adenovirus fibre proteins - containing non-native amino
PT acid sequence to provide for binding and entry into cells,
PT especially for gene therapy
XX
PS Claim 7; Page 92; 124pp; English.
XX
CC The present sequence represents a specifically claimed non-native amino
CC acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC present invention. The non-native amino acid sequence allows the
CC chimeric fibre (or a vector comprising the chimeric fibre) to more
CC efficiently bind to and enter cells. The products can be used for gene
CC therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC restenosis following angioplasty or to promote angiogenesis to reperfuse
CC necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ Sequence 12 AA;

Query Match 100.0%; Score 65; DB 19; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 3 CDCRGDCFC 11

RESULT 52
AAW95410
ID AAW95410 standard; peptide; 12 AA.
XX
AC AAW95410;
XX
DT 18-MAR-1999 (first entry)
XX
DE Integrin-binding peptide 5 specific for alpha V integrin.
XX
KW Integrin; transfection complex; integrin-binding; lipid; immunisation;
KW antisense therapy, enzyme; therapeutic agent; immunogen; cystic fibrosis;
KW cancer; viral infection; human immunodeficiency virus; cardiovascular;
KW restenosis; leukaemia; asthma; glaucoma; cyclic; circular.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 3..11
FT /note= "disulphide bridge"
XX
PN WO9854347-A1.
XX
PD 03-DEC-1998.
XX
PF 29-MAY-1998; 98WO-GB01577.
XX
PR 29-MAY-1997; 97GB-0011115.
XX
PA (CHIL-) INST CHILD HEALTH.
XX
PI Hart SL;
XX
DR WPI; 1999-045366/04.
XX
PT New integrin-targeting transfection complex including lipid - used
PT to improve transfection efficiency for a very wide range of cells,
PT useful in, e.g. antisense therapy and genetic immunisation
XX
PS Claim 9; Page 49; 70pp; English.
XX
CC The invention relates to an integrin-targeting transfection complex. The
CC complex comprises a nucleic acid, an integrin-binding component, a
CC polycationic nucleic acid-binding component and a lipid. The complexes
CC are used for in vivo or in vitro transfection of cells, specifically:
CC (i) for treatment or prevention of disease (in humans or other animals)
CC caused by defective or deficient genes; (ii) for immunisation; (iii) for
CC antisense therapy, and (iv) for protein production in host cells, e.g.
CC of enzymes, therapeutic agents, vaccinating immunogens and diagnostic
CC antigens. Typical of the diseases that can be treated or prevented are
CC cystic fibrosis, cancer, viral infection (e.g. human immunodeficiency
CC virus), cardiovascular disease (e.g. restenosis), leukaemia, asthma and
CC glaucoma. Incorporation of the lipid into the complex increases
CC transfection levels from 1-10 percent to over 50 percent. This effect is
CC observed with all cell types tested including those that are resistant to
CC transfection by most plasmid vectors. The complexes can carry large
CC genes, up to 125 kb, e.g. an artificial chromosome. The present sequence
CC represents a claimed example of an integrin-binding peptide used in the
CC transfection complexes.
XX
SQ Sequence 12 AA;

Query Match 100.0%; Score 65; DB 20; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 3 CDCRGDCFC 11

RESULT 53
AAE17099
ID AAE17099 standard; peptide; 12 AA.
XX
AC AAE17099;
XX
DT 18-APR-2002 (first entry)
XX
DE Cyclic integrin-binding peptide 5.
XX
KW Integrin binding component; polycationic nucleic acid-binding component;
KW lipid component; prophylaxis; immunisation; antisense therapy; asthma;
KW cystic fibrosis; cancer; viral infection; human immunodeficiency virus;

KW HIV infection; vaccine; neuroblastoma; bone marrow stem cell disorder;
KW leukaemia; adjuvant immunotherapy; eye disease; glaucoma; restenosis;
KW integrin-binding peptide; cyclic.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Domain 6..8
FT /note= "Arginine-glycine-aspartic acid (RGD) domain"
XX
PN WO200192542-A2.
XX
PD 06-DEC-2001.
XX
PF 30-MAY-2001; 2001WO-GB02394.
XX
PR 30-MAY-2000; 2000GB-0013089.
PR 30-MAY-2000; 2000GB-0013090.
PR 01-MAY-2001; 2001US-287410P.
XX
(ICHI-) ICH PRODN LTD.
XX
PI Hart SL;
XX
DR WPI; 2002-139612/18.
XX
PT Complex for transfecting cell with nucleic acid for treating,
PT preventing conditions caused by deficiency in a gene in humans, has
PT nucleic acid, lipid, integrin binding and polycationic nucleic
PT acid-binding components -
XX
PS Disclosure; Page 5; 108pp; English.
XX
CC The invention relates to integrin-targetting vectors having enhanced
CC transfection activity. The vector complex comprises a nucleic acid,
CC an integrin binding component, a polycationic nucleic acid-binding
CC component and a lipid component. The integrin binding component
CC comprises an integrin-binding element and a spacer element. Complex
CC of the invention is useful for transfecting cells in vitro or in
CC vivo with a nucleic acid, for treatment or prophylaxis of a condition
CC caused in human or a non-human animal by a defect and/or a deficiency
CC in a gene, immunisation and antisense therapy of a human or a non-human
CC animal. It is useful for transfecting bronchial and lung epithelium and
CC corneal endothelium for gene therapy for cystic fibrosis, asthma and
CC also various cancers and viral infections for example human
CC immunodeficiency virus (HIV) infection. It is also useful as a vaccine
CC or for therapy of neuroblastoma and the effective transfection of
CC primary smooth muscle cells, cardiac myocytes and haematopoietic cells.
CC Haematopoietic cell transfection enables gene therapy, gene vaccination
CC and antisense therapy of diseases involving haematopoietic cells,
CC including leukaemia and bone marrow stem cell disorders, for example
CC transfection of a cytokine gene may be used for adjuvant immunotherapy.
CC Transfection of corneal endothelium is useful for treatment of eye
CC disease affecting the cornea or corneal organ transplants, for example
CC in glaucoma. A gene that prevents proliferation of cells in blood
CC vessel walls is introduced using complex of the invention to reduce
CC restenosis. The present sequence is cyclic integrin-binding peptide
CC of the invention.
XX
SQ Sequence 12 AA;

Query Match 100.0%; Score 65; DB 23; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 3 CDCRGDCFC 11

RESULT 54
AAY90158
ID AAY90158 standard; peptide; 13 AA.
XX
AC AAY90158;
XX
DT 21-SEP-2000 (first entry)
XX
DE UPAR targeting sequence with spacers #7.
XX
KW Ligand epitope; UPAR; urokinase-type plasminogen activator receptor;
KW adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease;
KW recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma;
KW smooth muscle cell proliferation inhibitor; coronary artery disease;
KW obesity; neurodegenerative disease; infection; autoimmune disease; HIV;
KW thrombosis; diabetes; tropism-modified virus.
XX
OS Adenovirus sp.
XX
PN WO200012738-A1.
XX
PD 09-MAR-2000.
XX
PF 27-AUG-1999; 99WO-IB01524.
XX
PR 27-AUG-1998; 98US-0098028.
XX
PA (AVET) AVENTIS PHARMA SA.
XX
PI Vigne E, Dedieu J, Latta M, Yeh P, Perricaudet M;
XX
DR WPI; 2000-256653/22.
XX
PT Urokinase-type plasminogen activator receptor (UPAR)-targeted
PT adenovirus vectors having modified hexon HVR5 and HI loops and modified
PT fiber proteins useful for targeted gene therapy to treat cancer or
PT restenosis -
XX
PS Claim 15; Page 69; 128pp; English.
XX
CC This sequence represents a targeting sequence for UPAR, and is flanked
CC by linkers. The invention relates to an adenovirus from which at
CC least a part of the hexon HVR5 or HI loop is replaced with a binding
CC peptide, or targeting sequence, flanked by connecting amino acid spacers,
CC to functionally display its binding specificity at the capsid surface.
CC The invention also relates to a recombinant adenovirus vector where a
CC binding peptide, or targeting sequence, is connected to the C-terminus of
CC the fiber by a connecting spacer, or linker, so as to functionally
CC display its binding specificity at the capsid surface. The adenovirus or
CC recombinant adenovirus vector can be used to preferentially express a
CC gene in a target cell, especially a cell that expresses a UPAR. The
CC targeted adenovirus vector preferably comprises a heterologous gene
CC encoding a gene for treatment of a tumour or restenosis. The targeted
CC adenovirus vector is useful for gene therapy treatment of a disease, and
CC for manufacturing a medicine used in gene therapy treatment of a disease.
CC The viruses can also be used to inhibit smooth muscle cell proliferation,
CC to treat peripheral artery diseases, coronary artery diseases, obesity,
CC neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
CC thrombosis, and diabetes. The viruses are particularly targeted against a
CC urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC are tropism-modified without adversely impacting productivity of the
CC vectors.
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 65; DB 21; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.046;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 3 CDCRGDCFC 11

RESULT 55
AAU98801

ID AAU98801 standard; Peptide; 13 AA.
XX
AC AAU98801;
XX
DT 23-AUG-2002 (first entry)
XX
DE Peptide linked oligomer compound related peptide #10.
XX
KW Peptide linked oligomeric compound;
KW phosphorothioate 2'-O-MOE gapmer oligonucleotide.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "OTHER= 3-mercaptopropionyl"
FT Modified-site 13
FT /note= "C terminal amide"
XX
PN WO200220544-A1.
XX
PD 14-MAR-2002.
XX
PF 07-SEP-2001; 2001WO-US28083.
XX
PR 08-SEP-2000; 2000US-0658517.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Manoharan M, Guzaev AP;
XX
DR WPI; 2002-489670/52.
XX
PT Preparing peptide linked oligomeric compound useful for diagnostics,
PT therapeutics and as research reagents and kits by employing equimolar
PT amounts functionalised oligomeric compounds and peptide reagents -
XX
PS Example 6; Page 74; 124pp; English.
XX
CC This invention relates to a novel method for preparing peptide linked
CC oligomeric compounds by deprotecting the hydroxyl groups of a compound
CC derivatising support medium, reacting deprotected hydroxyl groups with
CC a nucleoside to form a compound from which a capped compound is formed,
CC oxidized and cleaved to form an oligomeric compound having a reactive
CC sulfur moiety. The reactive sulphur moiety is reacted with peptide
CC with functional group reactive with sulfur moiety, to form a peptide
CC linked oligomeric compound. The method of the invention is useful for
CC preparing an oligomeric compound. The oligomeric compounds can be used
CC in diagnostics, therapeutics and as research reagents and kits. They can
CC also be used in pharmaceutical compositions by including a suitable
CC diluent or carrier. The oligomeric compounds of the invention can
CC further be used for treating organisms having a disease characterised by
CC the undesired production of a protein. This method is suitable for large
CC scale synthesis of oligomeric compounds, the methods provide improved
CC synthetic schemes which avoid the problem of prior art. The synthetic
CC methods employed equimolar amounts of functionalised oligomeric
CC compounds and peptide reagents which has successfully resulted in large
CC scale synthesis. This scaled up synthesis is significantly larger than
CC any synthesis method described previously. The methods are highly
CC economical. The present sequence represents a peptide used in the
CC creation of a peptide linked oligomeric compound of the invention,
CC this peptide may undergo random oxidisation of the Cys residues and
CC is likely to form intermolecular aggregates.
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 65; DB 23; Length 13;
Best Local Similarity 100.0%; Pred. No. 0.046;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 4 CDCRGDCFC 12

RESULT 56
AAU98802
ID AAU98802 standard; Peptide; 13 AA.
XX
AC AAU98802;
XX
DT 23-AUG-2002 (first entry)
XX
DE Peptide linked oligomer compound related peptide #11.
XX
KW Peptide linked oligomeric compound;
KW phosphorothioate 2'-O-MOE gapmer oligonucleotide.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "OTHER= 3-mercaptopropionyl"
FT Modified-site 13
FT /note= "C terminal amide"
XX
PN WO200220544-A1.
XX
PD 14-MAR-2002.
XX
PF 07-SEP-2001; 2001WO-US28083.
XX
PR 08-SEP-2000; 2000US-0658517.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Manoharan M, Guzaev AP;
XX
DR WPI; 2002-489670/52.
XX
PT Preparing peptide linked oligomeric compound useful for diagnostics,
PT therapeutics and as research reagents and kits by employing equimolar
PT amounts functionalised oligomeric compounds and peptide reagents -
XX
PS Disclosure; Page 60; 124pp; English.
XX
CC This invention relates to a novel method for preparing peptide linked
CC oligomeric compounds by deprotecting the hydroxyl groups of a compound
CC derivatising support medium, reacting deprotected hydroxyl groups with
CC a nucleoside to form a compound from which a capped compound is formed,
CC oxidized and cleaved to form an oligomeric compound having a reactive
CC sulfur moiety. The reactive sulphur moiety is reacted with peptide
CC with functional group reactive with sulfur moiety, to form a peptide
CC linked oligomeric compound. The method of the invention is useful for
CC preparing an oligomeric compound. The oligomeric compounds can be used
CC in diagnostics, therapeutics and as research reagents and kits. They can
CC also be used in pharmaceutical compositions by including a suitable
CC diluent or carrier. The oligomeric compounds of the invention can
CC further be used for treating organisms having a disease characterised by
CC the undesired production of a protein. This method is suitable for large
CC scale synthesis of oligomeric compounds, the methods provide improved
CC synthetic schemes which avoid the problem of prior art. The synthetic
CC methods employed equimolar amounts of functionalised oligomeric
CC compounds and peptide reagents which has successfully resulted in large
CC scale synthesis. This scaled up synthesis is significantly larger than
CC any synthesis method described previously. The methods are highly
CC economical. The present sequence represents a peptide used in the
CC creation of a peptide linked oligomeric compound of the invention,
CC this peptide may undergo defined oxidation between Cys residues and
CC is likely to form intermolecular aggregates.
XX
SQ Sequence 13 AA;

Query Match 100.0%; Score 65; DB 23; Length 13;

Best Local Similarity 100.0%; Pred. No. 0.046;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12
```

RESULT 57
AAW19833
ID AAW19833 standard; Peptide; 14 AA.
XX
AC AAW19833;
XX
DT 26-JAN-1998 (first entry)
XX
DE RGD peptide motif.
XX
KW Adenovirus; vector; coat protein; gene therapy; gene transfer;
KW human; cancer; autoimmune disease; heart disease; infection;
KW universal transfer vector; RGD peptide.
XX
OS Synthetic.
XX
PN WO9720051-A2.
XX
PD 05-JUN-1997.
XX
PF 27-NOV-1996; 96WO-US19150.
XX
PR 21-AUG-1996; 96US-0701124.
PR 28-NOV-1995; 95US-0563368.
PR 21-AUG-1996; 96US-0700846.
XX
PA (GENV-) GENVEC INC.
XX
PI Brough DE, Kovesdi I, Wickham TJ;
XX
DR WPI; 1997-310606/28.
XX
PT Adenoviral vectors containing chimeric coat protein - bind and enter
PT cells more efficiently, useful for gene therapy of e.g. cancer,
PT autoimmune diseases, etc.
XX
PS Example 19; Page 77; 121pp; English.
XX
CC This peptide comprises an RGD peptide motif contained in the
CC adenovirual vector AdZ.F(RGD). The growth behaviour of this
CC vector was compared to that of wild-type adenovirus Ad5 and of
CC vector AdZ.F(pK7), which contains a universal transfer vector
CC (UTV) sequence. 293 cells were infected with the vectors.
CC The peaks titres of AdZ.F(RGD) and AdZ.F(pK7) were 80% and 56%,
CC respectively, that of Ad5. The results confirm that the growth
CC kinetics of the 2 vectors were not substantially affected by
CC addition of sequences, particularly a UTV or UTV-like sequence,
CC onto the end of the fibre protein. Chimeric adenovirus coat
CC proteins containing UTV sequences (see AAW19810-11, AAW19813-25,
CC AAW19834-43) facilitate entry of adenoviral vectors into target
CC cells. The vectors can be used for the gene therapy of e.g.
CC cancer, autoimmune diseases, pathogenic infections, heart disease
CC and genetic disorders.
XX
SQ Sequence 14 AA;

Query Match 100.0%; Score 65; DB 18; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.048;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11
```

RESULT 58
AAW56051
ID AAW56051 standard; peptide; 14 AA.
XX
AC AAW56051;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 68.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;
KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX
DR WPI; 1998-169169/15.
XX
PT Chimeric adenovirus fibre proteins - containing non-native amino
PT acid sequence to provide for binding and entry into cells,
PT especially for gene therapy
XX
PS Claim 7; Page 88; 124pp; English.
XX
CC The present sequence represents a specifically claimed non-native amino
CC acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC present invention. The non-native amino acid sequence allows the
CC chimeric fibre (or a vector comprising the chimeric fibre) to more
CC efficiently bind to and enter cells. The products can be used for gene
CC therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC restenosis following angioplasty or to promote angiogenesis to reperfuse
CC necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ Sequence 14 AA;

Query Match 100.0%; Score 65; DB 19; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.048;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11
```

RESULT 59
AAW56040
ID AAW56040 standard; peptide; 15 AA.
XX
AC AAW56040;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 31.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;

KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX
DR WPI; 1998-169169/15.
DR N-PSDB; AAV28550.
XX
PT Chimeric adenovirus fibre proteins - containing non-native amino
PT acid sequence to provide for binding and entry into cells,
PT especially for gene therapy
XX
PS Claim 7; Page 76; 124pp; English.
XX
CC The present sequence represents a specifically claimed non-native amino
CC acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC present invention. The non-native amino acid sequence allows the
CC chimeric fibre (or a vector comprising the chimeric fibre) to more
CC efficiently bind to and enter cells. The products can be used for gene
CC therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC restenosis following angioplasty or to promote angiogenesis to reperfuse
CC necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 65; DB 19; Length 15;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 4 CDCRGDCFC 12

RESULT 60
AAY43228
ID AAY43228 standard; peptide; 15 AA.
XX
AC AAY43228;
XX
DT 13-JAN-2000 (first entry)
XX
DE RGD-containing peptide #7.
XX
KW Nucleic acid delivery vehicle; bifunctional complex; transgene; CFTR;
KW cell surface targeting; cell surface molecule binding region; integrin;
KW cystic fibrosis transmembrane regulator; alphal-antitrypsin;
KW suicide gene; beta-glucocerebrosidase; cell transfection; cell infection;
KW RGD peptide.
XX
OS Synthetic.
XX
PN WO9940214-A2.
XX
PD 12-AUG-1999.
XX
PF 08-FEB-1999; 99WO-US02680.
XX
PR 09-FEB-1998; 98US-0020483.
PR 06-NOV-1998; 98US-0107471.
XX
PA (GENZ) GENZYME CORP.
XX
PI O'riordan C, Romanczuk H, Wadsworth SC;
XX
DR WPI; 1999-610583/52.
XX
PT Nucleic acid delivery vehicles useful for transfecting and infecting a
PT target cell -
XX
PS Claim 22; Page 39; 118pp; English.
XX
CC This sequence represents a RGD-containing peptide that can be used in a
CC bifunctional complex used in the nucleic acid delivery vehicle (I) of the
CC invention. (I) is for transfecting and/or infecting a target cell, and
CC comprises a transgene and a bifunctional complex (B) that targets the
CC nucleic acid delivery vehicle to the cell surface. (B) comprises a
CC delivery vehicle binding portion, a cell surface molecule binding portion
CC (such as this sequence) and a linker connecting them. The delivery
CC vehicle can be specifically targeted to the cell via the binding to cell
CC surface molecules. (I) can be used to target cells, which express
CC integrins such as, HT-29 colon carcinoma cells, lymphocytes and
CC monocytes, blood platelets, SMC-90 human lung fibroblast, MG(63)
CC osteosarcoma cell line, vascular endothelial cells and melanoma cells.
CC (I) is useful for delivery of nucleic acids encoding CFTR (cystic
CC fibrosis transmembrane regulator), alphal-antitrypsin,
CC beta-glucocerebrosidase and suicide genes. The construct increases the
CC efficiency of cellular uptake of (I). The constructs also enable the
CC transfection/infection of cells that are normally refractory to
CC transfection/infection by targeting cell receptors that are present on
CC such cells.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 65; DB 20; Length 15;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 3 CDCRGDCFC 11

RESULT 61
AAY90167
ID AAY90167 standard; peptide; 15 AA.
XX
AC AAY90167;
XX
DT 21-SEP-2000 (first entry)
XX
DE UPAR targeting sequence with spacers #17.
XX
KW Ligand epitope; UPAR; urokinase-type plasminogen activator receptor;
KW adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease;
KW recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma;
KW smooth muscle cell proliferation inhibitor; coronary artery disease;
KW obesity; neurodegenerative disease; infection; autoimmune disease; HIV;
KW thrombosis; diabetes; tropism-modified virus.
XX
OS Adenovirus sp.
XX
PN WO200012738-A1.
XX
PD 09-MAR-2000.
XX
PF 27-AUG-1999; 99WO-IB01524.
XX
PR 27-AUG-1998; 98US-0098028.
XX

PA (AVET) AVENTIS PHARMA SA.
XX
PI Vigne E, Dedieu J, Latta M, Yeh P, Perricaudet M;
XX
DR WPI; 2000-256653/22.
XX
PT Urokinase-type plasminogen activator receptor (UPAR)-targeted
PT adenovirus vectors having modified hexon HVR5 and HI loops and modified
PT fiber proteins useful for targeted gene therapy to treat cancer or
PT restenosis -
XX
PS Claim 38; Page 72; 128pp; English.
XX
CC This sequence represents a targeting sequence for UPAR, and is flanked
CC by linkers. The invention relates to an adenovirus from which at
CC least a part of the hexon HVR5 or HI loop is replaced with a binding
CC peptide, or targeting sequence, flanked by connecting amino acid spacers,
CC to functionally display its binding specificity at the capsid surface.
CC The invention also relates to a recombinant adenovirus vector where a
CC binding peptide, or targeting sequence, is connected to the C-terminus of
CC the fiber by a connecting spacer, or linker, so as to functionally
CC display its binding specificity at the capsid surface. The adenovirus or
CC recombinant adenovirus vector can be used to preferentially express a
CC gene in a target cell, especially a cell that expresses a UPAR. The
CC targeted adenovirus vector preferably comprises a heterologous gene
CC encoding a gene for treatment of a tumour or restenosis. The targeted
CC adenovirus vector is useful for gene therapy treatment of a disease, and
CC for manufacturing a medicine used in gene therapy treatment of a disease.
CC The viruses can also be used to inhibit smooth muscle cell proliferation,
CC to treat peripheral artery diseases, coronary artery diseases, obesity,
CC neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
CC thrombosis, and diabetes. The viruses are particularly targeted against a
CC urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC are tropism-modified without adversely impacting productivity of the
CC vectors.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 65; DB 21; Length 15;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 4 CDCRGDCFC 12

RESULT 62
AAY54272
ID AAY54272 standard; Peptide; 15 AA.
XX
AC AAY54272;
XX
DT 06-APR-2000 (first entry)
XX
DE Peptide inserted between Ser6 and Pro7 of an envelope protein.
XX
KW Envelope protein; mutant; retrovirus; surface protein shedding;
KW envelope protein stability; gene therapy; drug therapy; cancer;
KW adenosine deaminase deficiency; thalassemia; hemophilia; diabetes;
KW alpha-anti trypsin deficiency; brain disorder; neural disorder;
KW phenylketonuria; growth disorder; heart disease; immune disease.
XX
OS Synthetic.
XX
PN WO9960110-A2.
XX
PD 25-NOV-1999.
XX
PF 20-MAY-1999; 99WO-US11155.
XX
PR 20-MAY-1998; 98US-0086149.
XX

PA (UYTE-) UNIV TENNESSEE RES CORP.
XX
PI Albritton LM, Zavorotinskaya T;
XX
DR WPI; 2000-116313/10.
XX
PT Novel isolated nucleic acid, useful for gene therapy -
XX
PS Example 10; Page 78; 190pp; English.
XX
CC The specification describes mutant retrovirus envelope proteins. The
CC envelope protein coding sequence can be mutated to encode a mutant
CC envelope protein with a substitution of one or more amino acids in at
CC least one motif of the retrovirus protein. The mutant protein fragment
CC allows for decreased shedding of the surface protein by suppressing
CC precursor cleavage and increase envelope stability and fusion of
CC retroviruses with cell membranes, while maintaining mutant envelope
CC protein incorporation into a virion, and viral titers of about two orders
CC of magnitude within that observed for wild-type retrovirus when the
CC protein or fragment is expressed on the surface of a retroviral particle.
CC The proteins have an increased ability to penetrate targets, typically
CC cells and a correspondingly increased ability to deliver nucleic acids or
CC drugs. The mutated nucleic acid is useful for gene and drug therapy,
CC especially as drug delivery vehicles. The retrovirus particles can be
CC utilized to transduce eukaryotic cells. The transduced cells are useful
CC in the treatment of cancer in a human. Other diseases contemplated for
CC treatment include adenosine deaminase deficiency (ADA), thalassemia,
CC hemophilia, diabetes, alpha-anti trypsin deficiency, brain and neural
CC disorders, phenylketonuria, growth disorders, heart diseases and immune
CC diseases. The present sequence is inserted between Ser6 and Pro7 of
CC the Moloney murine leukemia virus envelope protein, in the course of the
CC invention.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 65; DB 21; Length 15;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 4 CDCRGDCFC 12

RESULT 63
AAW96218
ID AAW96218 standard; Peptide; 21 AA.
XX
AC AAW96218;
XX
DT 12-MAY-1999 (first entry)
XX
DE AlphavBeta3 integrin binding peptide.
XX
KW Vector; lamda phage; bacteriophage; functional genomics;
KW therapeutics; steroid receptor; gene transfer; transfection;
KW chimeric vector.
XX
OS Unidentified.
XX
PN WO9856937-A2.
XX
PD 17-DEC-1998.
XX
PF 09-JUN-1998; 98WO-US12158.
XX
PR 22-JAN-1998; 98US-0072222.
PR 09-JUN-1997; 97US-0049072.
XX
PA (GENV-) GENVEC INC.
XX
PI Brough DE, Kovesdi I, Mcvey DL, Zuber M;
XX

DR WPI; 1999-080912/07.
XX
PT New eukaryotic gene transfer vectors - comprising a portion of a
PT eukaryotic viral genome comprising an ITR, a regulatable negative
PT selection gene and a phage packaging site
XX
PS Example 6; Page 68; 100pp; English.
XX
CC New eukaryotic DNA transfer vectors comprise homologous recombining
CC lambdid vectors with a second DNA in a bacterium to generate the
CC recombinant eukaryotic viral gene transfer vectors. The vectors
CC comprise an ITR, a regulatable negative selection gene, and a
CC phage packaging site or a portion of a eukaryotic viral genome
CC comprising an ITR, a stringent promoter operably linked to an open
CC reading frame (ORF) comprising a strong bacterial signal for the
CC initiation of translation, and a phage packaging site. The
CC eukaryotic gene transfer vectors can be used to immunise a host,
CC for therapeutic gene transfer to a host, and to study the biology
CC of transferred genes in vivo. The vectors can be used for e.g.
CC functional genomics (identifying binding peptides from a library),
CC therapeutics (neovascularisation or antisense RNA delivery), and
CC general research (site directed mutagenesis driven study of the
CC structure-function relationships of a steroid receptor or other
CC protein). One gene which can be used in the invention is the gene
CC encoding D protein. This sequence can be placed at the C- or
CC N-terminal end of the D protein to ensure specific binding of the
CC expressed D-protein to any cell expressing the alphavbeta3 integrin
CC on its surface. Thus recombinant proteins of the invention can be
CC targetted to specific cells or cell types, thereby effecting the
CC uptake of the protein into endosomes of the eukaryotic cell.
XX
SQ Sequence 21 AA;

Query Match 100.0%; Score 65; DB 20; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.066;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 12 CDCRGDCFC 20

RESULT 64
AAW96220
ID AAW96220 standard; Peptide; 23 AA.
XX
AC AAW96220;
XX
DT 12-MAY-1999 (first entry)
XX
DE Modified Gene 10 3' terminal sequence.
XX
KW Vector; lamda phage; bacteriophage; functional genomics;
KW therapeutics; steroid receptor; gene transfer; transfection;
KW chimeric vector.
XX
OS Bacteriophage T7.
XX
PN WO9856937-A2.
XX
PD 17-DEC-1998.
XX
PF 09-JUN-1998; 98WO-US12158.
XX
PR 22-JAN-1998; 98US-0072222.
PR 09-JUN-1997; 97US-0049072.
XX
PA (GENV-) GENVEC INC.
XX
PI Brough DE, Kovesdi I, Mcvey DL, Zuber M;
XX
DR WPI; 1999-080912/07.
DR N-PSDB; AAX08991.
XX
PT New eukaryotic gene transfer vectors - comprising a portion of a
PT eukaryotic viral genome comprising an ITR, a regulatable negative
PT selection gene and a phage packaging site
XX
PS Example 7; Page 69; 100pp; English.
XX
CC New eukaryotic DNA transfer vectors comprise homologous recombining
CC lambdid vectors with a second DNA in a bacterium to generate the
CC recombinant eukaryotic viral gene transfer vectors. The vectors
CC comprise an ITR, a regulatable negative selection gene, and a
CC phage packaging site or a portion of a eukaryotic viral genome
CC comprising an ITR, a stringent promoter operably linked to an open
CC reading frame (ORF) comprising a strong bacterial signal for the
CC initiation of translation, and a phage packaging site. The
CC eukaryotic gene transfer vectors can be used to immunise a host,
CC for therapeutic gene transfer to a host, and to study the biology
CC of transferred genes in vivo. The vectors can be used for e.g.
CC functional genomics (identifying binding peptides from a library),
CC therapeutics (neovascularisation or antisense RNA delivery), and
CC general research (site directed mutagenesis driven study of the
CC structure-function relationships of a steroid receptor or other
CC protein). One gene which can be used in the invention is gene
CC 10 of T7 phage . The modified gene 10 sequence is provided by a
CC plasmid in trans so when a T7 vector with gene 10 deleted is used
CC to transfect eukaryotic cells. The modified gene 10 within the
CC plasmid is expressed by the gene 10 promoter in the T7 vector.
XX
SQ Sequence 23 AA;

Query Match 100.0%; Score 65; DB 20; Length 23;
Best Local Similarity 100.0%; Pred. No. 0.07;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 14 CDCRGDCFC 22

RESULT 65
AAW56044
ID AAW56044 standard; peptide; 24 AA.
XX
AC AAW56044;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 49.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;
KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX
DR WPI; 1998-169169/15.
DR N-PSDB; AAV28554.
XX
PT Chimeric adenovirus fibre proteins - containing non-native amino
PT acid sequence to provide for binding and entry into cells,

```
PT   especially for gene therapy
XX
PS   Claim 7; Page 82; 124pp; English.
XX
CC   The present sequence represents a specifically claimed non-native amino
CC   acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC   present invention. The non-native amino acid sequence allows the
CC   chimeric fibre (or a vector comprising the chimeric fibre) to more
CC   efficiently bind to and enter cells. The products can be used for gene
CC   therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC   well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC   muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC   tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC   restenosis following angioplasty or to promote angiogenesis to reperfuse
CC   necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC   colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ   Sequence   24 AA;

  Query Match             100.0%;  Score 65;  DB 19;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 0.073;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db      15 CDCRGDCFC 23


RESULT 66
AAB21940
ID   AAB21940 standard; Peptide; 25 AA.
XX
AC   AAB21940;
XX
DT   22-MAR-2001  (first entry)
XX
DE   Homing antimicrobial pro-apoptotic conjugate #4.
XX
KW   Cytostatic; homing pro-apoptotic conjugate; tumour; antimicrobial;
KW   breast; prostate; melanoma; cancer; Kaposi's sarcoma; amphipathic;
KW   alpha-helix; human.
XX
OS   Chimeric - Homo sapiens.
OS   Chimeric - Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 12..25
FT                   /note= "Preferably D-form residues"
XX
PN   WO200042973-A2.
XX
PD   27-JUL-2000.
XX
PF   21-JAN-2000; 2000WO-US01602.
XX
PR   22-JAN-1999;   99US-0235902.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Ellerby HM,  Bredesen DE,  Pasqualini R,  Ruoslahti E;
XX
DR   WPI; 2000-499174/44.
XX
PT   Homing pro-apoptotic conjugate comprising a tumor homing molecule that
PT   selectively homes to a mammalian cell type or tissue linked to an
PT   antimicrobial peptide, useful for the treatment of prostate cancer -
XX
PS   Disclosure; Page 8; 118pp; English.
XX
CC   The present invention relates to homing pro-apoptotic conjugates,
CC   comprising of a tumour homing molecule that selectively homes to a
CC   mammalian cell type or tissue, linked to an antimicrobial peptide. The
CC   homing pro-apoptotic conjugates are selectively internalised by the
CC   mammalian cell type or tissue and exhibits high toxicity, especially to
CC   angiogenic vasculature. The antimicrobial peptide has low mammalian cell
CC   toxicity when not linked to the tumor homing molecule. In addition, the
CC   antimicrobial peptide has an amphipathic alpha-helical structure. The
CC   conjugates are useful for the treatment of cancer e.g. Kaposi's sarcoma,
CC   breast and prostate cancer or melanoma. The present sequence is one such
CC   homing pro-apoptotic conjugate.
XX
SQ   Sequence   25 AA;

  Query Match             100.0%;  Score 65;  DB 21;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 0.075;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 67
AAE06517
ID   AAE06517 standard; peptide; 25 AA.
XX
AC   AAE06517;
XX
DT   25-SEP-2001  (first entry)
XX
DE   Homing pro-apoptotic peptide #4.
XX
KW   Chimeric prostate-homing pro-apoptotic peptide; prostate-homing peptide;
KW   antimicrobial peptide; prostate cancer; breast tumour homing molecule;
KW   cytostatic.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Domain          1..9
FT                   /label= Homing_domain
FT   Domain          10..11
FT                   /label= Coupling_domain
FT                   /note= "Glycinylglycine bridge"
FT   Domain          12..25
FT                   /label= Antimicrobial_peptide
XX
PN   WO200153342-A1.
XX
PD   26-JUL-2001.
XX
PF   16-JAN-2001; 2001WO-US01362.
XX
PR   21-JAN-2000; 2000US-0489582.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Ruoslahti EI,  Pasqualini R,  Arap W,  Bredesen DE,  Ellerby HM;
XX
DR   WPI; 2001-451901/48.
XX
PT   Novel chimeric prostate-homing pro-apoptotic peptide, used to treat
PT   prostate cancer, comprises a prostate-homing peptide linked to an
PT   antimicrobial peptide -
XX
PS   Example 3; Page 82; 176pp; English.
XX
CC   The patent discloses novel chimeric prostate-homing pro-apoptotic
CC   peptide which comprises a prostate-homing peptide linked to an
CC   antimicrobial peptide, where the chimeric peptide is selectively
CC   internalised by and exhibits high toxicity to prostate tissue and
CC   where the antimicrobial peptide has low mammalian cell toxicity when
CC   not linked to prostate-homing peptide. The chimeric peptide is used
CC   to direct an antimicrobial peptide in vivo to a prostate cancer, to
CC   induce selective toxicity in vivo in a prostate cancer, and to treat
CC   a patient with prostate cancer. The present sequence is a homing pro-
```

```
CC   apoptotic peptide. This peptide inhibits retinal neovascularisation.
XX
SQ   Sequence   25 AA;

  Query Match             100.0%;  Score 65;  DB 22;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 0.075;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 68
AAB21937
ID   AAB21937 standard; Peptide; 26 AA.
XX
AC   AAB21937;
XX
DT   22-MAR-2001  (first entry)
XX
DE   Homing antimicrobial pro-apoptotic conjugate #2.
XX
KW   Cytostatic; homing pro-apoptotic conjugate; tumour; antimicrobial;
KW   breast; prostate; melanoma; cancer; Kaposi's sarcoma; amphipathic;
KW   alpha-helix; human.
XX
OS   Chimeric - Homo sapiens.
OS   Chimeric - Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 13..26
FT                   /note= "Preferably D-form residues"
XX
PN   WO200042973-A2.
XX
PD   27-JUL-2000.
XX
PF   21-JAN-2000; 2000WO-US01602.
XX
PR   22-JAN-1999;   99US-0235902.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Ellerby HM,  Bredesen DE,  Pasqualini R,  Ruoslahti EI;
XX
DR   WPI; 2000-499174/44.
XX
PT   Homing pro-apoptotic conjugate comprising a tumor homing molecule that
PT   selectively homes to a mammalian cell type or tissue linked to an
PT   antimicrobial peptide, useful for the treatment of prostate cancer -
XX
PS   Claim 13; Page 105; 118pp; English.
XX
CC   The present invention relates to homing pro-apoptotic conjugates,
CC   comprising of a tumour homing molecule that selectively homes to a
CC   mammalian cell type or tissue, linked to an antimicrobial peptide. The
CC   homing pro-apoptotic conjugates are selectively internalised by the
CC   mammalian cell type or tissue and exhibits high toxicity, especially to
CC   angiogenic vasculature. The antimicrobial peptide has low mammalian cell
CC   toxicity when not linked to the tumor homing molecule. In addition, the
CC   antimicrobial peptide has an amphipathic alpha-helical structure. The
CC   conjugates are useful for the treatment of cancer e.g. Kaposi's sarcoma,
CC   breast and prostate cancer or melanoma. The present sequence is one such
CC   homing pro-apoptotic conjugate.
XX
SQ   Sequence   26 AA;

  Query Match             100.0%;  Score 65;  DB 21;  Length 26;
  Best Local Similarity   100.0%;  Pred. No. 0.077;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 69
AAE06516
ID   AAE06516 standard; peptide; 26 AA.
XX
AC   AAE06516;
XX
DT   25-SEP-2001  (first entry)
XX
DE   Homing pro-apoptotic peptide #3.
XX
KW   Chimeric prostate-homing pro-apoptotic peptide; prostate-homing peptide;
KW   antimicrobial peptide; prostate cancer; breast tumour homing molecule;
KW   cytostatic.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Domain          1..10
FT                   /label= Homing_domain
FT   Domain          11..12
FT                   /label= Coupling_domain
FT                   /note= "Glycinylglycine bridge"
FT   Domain          13..26
FT                   /label= Antimicrobial_peptide
XX
PN   WO200153342-A1.
XX
PD   26-JUL-2001.
XX
PF   16-JAN-2001; 2001WO-US01362.
XX
PR   21-JAN-2000; 2000US-0489582.
XX
PA   (BURN-) BURNHAM INST.
XX
PI   Ruoslahti EI,  Pasqualini R,  Arap W,  Bredesen DE,  Ellerby HM;
XX
DR   WPI; 2001-451901/48.
XX
PT   Novel chimeric prostate-homing pro-apoptotic peptide, used to treat
PT   prostate cancer, comprises a prostate-homing peptide linked to an
PT   antimicrobial peptide -
XX
PS   Example 2; Page 80; 176pp; English.
XX
CC   The patent discloses novel chimeric prostate-homing pro-apoptotic
CC   peptide which comprises a prostate-homing peptide linked to an
CC   antimicrobial peptide, where the chimeric peptide is selectively
CC   internalised by and exhibits high toxicity to prostate tissue and
CC   where the antimicrobial peptide has low mammalian cell toxicity when
CC   not linked to prostate-homing peptide. The chimeric peptide is used
CC   to direct an antimicrobial peptide in vivo to a prostate cancer, to
CC   induce selective toxicity in vivo in a prostate cancer, and to treat
CC   a patient with prostate cancer. The present sequence is a homing pro-
CC   apoptotic peptide.
XX
SQ   Sequence   26 AA;

  Query Match             100.0%;  Score 65;  DB 22;  Length 26;
  Best Local Similarity   100.0%;  Pred. No. 0.077;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      2 CDCRGDCFC 10


RESULT 70
AAU74973
```

```
ID   AAU74973 standard; Peptide; 28 AA.
XX
AC   AAU74973;
XX
DT   09-APR-2002  (first entry)
XX
DE   Alpha V integrin binding oligo lysine peptide.
XX
KW   Cyclic; virucide; human immunodeficiency virus; HIV; cytostatic;
KW   ophthalmological; vasotropic; vaccine; gene therapy; transfection;
KW   cystic fibrosis; asthma; cancer; leukaemia; glaucoma; gene vaccination;
KW   anti-sense therapy; eye disease; corneal organ transplant; integrin;
KW   transfection; restenosis; alpha V integrin.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Region          1..16
FT                   /note= "Polycationic nucleic acid binding sequence"
FT   Peptide         17..28
FT                   /note= "This sequence provides the alpha V
FT                          integrin binding specificity"
FT   Region          22..24
FT                   /note= "Conserved RGD sequence for high affinity
FT                          binding to integrins"
XX
PN   WO200192543-A2.
XX
PD   06-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-GB02396.
XX
PR   30-MAY-2000; 2000GB-0013089.
PR   30-MAY-2000; 2000GB-0013090.
PR   01-MAY-2001; 2001US-287410P.
XX
PA   (ICHI-) ICH PRODN LTD.
XX
PI   Hart SL;
XX
DR   WPI; 2002-114355/15.
XX
PT   Transfecting confluent cells with nucleic acid for gene therapy or gene
PT   vaccination, comprises contacting the cells with a receptor-targeted
PT   vector having the nucleic acid and an agent that disrupts cell-cell
PT   junctions  -
XX
PS   Example 1; Page 43; 111pp; English.
XX
CC   The invention describes transfecting (I) confluent cells or other slowly
CC   dividing or non-dividing cells that are in contact with each other, with
CC   a nucleic acid. The method comprises contacting the cells with a
CC   receptor-targeted vector comprising the nucleic acid, and an agent that
CC   disrupts cell-cell junctions under conditions suitable to effect
CC   transfection. (I) is useful for transfecting bronchial and lung
CC   epithelium for gene therapy for cystic fibrosis, asthma and also various
CC   cancers and viral infections e.g. human immunodeficiency virus (HIV)
CC   infection. Haematopoietic cell transfection enables gene therapy, gene
CC   vaccination and anti-sense therapy of diseases involving haematopoietic
CC   cells, including leukaemia and bone marrow stem cell disorders.
CC   Transfection of corneal endothelium is useful for treatment of eye
CC   disease affecting the cornea or corneal organ transplants, for e.g. in
CC   glaucoma. A gene preventing cell proliferation in blood vessel walls is
CC   introduced using an integrin targeting transfection vector complex (II)
CC   to reduce restenosis. (II) is useful for intracellular transport and
CC   delivery of anti-sense oligonucleotides, which enables antiviral and
CC   cancer therapy and is effective in transporting large DNA molecules.
CC   This sequence represents a cyclic peptide containing the conserved RGD
CC   amino acid sequence that binds with high affinity to integrins to allow
CC   the nucleic acid to pass into the cell, described in the method of the
CC   invention.
XX
SQ   Sequence   28 AA;
```

```
  Query Match             100.0%;  Score 65;  DB 23;  Length 28;
  Best Local Similarity   100.0%;  Pred. No. 0.082;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db      19 CDCRGDCFC 27


RESULT 71
AAE17123
ID   AAE17123 standard; peptide; 28 AA.
XX
AC   AAE17123;
XX
DT   18-APR-2002  (first entry)
XX
DE   Integrin-targetting oligolysine-peptide 5.
XX
KW   Integrin binding component; polycationic nucleic acid-binding component;
KW   lipid component; prophylaxis; immunisation; antisense therapy; asthma;
KW   cystic fibrosis; cancer; viral infection; human immunodeficiency virus;
KW   HIV infection; vaccine; neuroblastoma; bone marrow stem cell disorder;
KW   leukaemia; adjuvant immunotherapy; eye disease; glaucoma; restenosis;
KW   integrin-targetting peptide.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Domain          22..24
FT                   /note= "Arginine-glycine-aspartic acid (RGD) domain"
XX
PN   WO200192542-A2.
XX
PD   06-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-GB02394.
XX
PR   30-MAY-2000; 2000GB-0013089.
PR   30-MAY-2000; 2000GB-0013090.
PR   01-MAY-2001; 2001US-287410P.
XX
PA   (ICHI-) ICH PRODN LTD.
XX
PI   Hart SL;
XX
DR   WPI; 2002-139612/18.
XX
PT   Complex for transfecting cell with nucleic acid for treating,
PT   preventing conditions caused by deficiency in a gene in humans, has
PT   nucleic acid, lipid, integrin binding and polycationic nucleic
PT   acid-binding components  -
XX
PS   Example 5; Page 33; 108pp; English.
XX
CC   The invention relates to integrin-targetting vectors having enhanced
CC   transfection activity. The vector complex comprises a nucleic acid,
CC   an integrin binding component, a polycationic nucleic acid-binding
CC   component and a lipid component. The integrin binding component
CC   comprises an integrin-binding element and a spacer element. Complex
CC   of the invention is useful for transfecting cells in vitro or in
CC   vivo with a nucleic acid, for treatment or prophylaxis of a condition
CC   caused in human or a non-human animal by a defect and/or a deficiency
CC   in a gene, immunisation and antisense therapy of a human or a non-human
CC   animal. It is useful for transfecting bronchial and lung epithelium and
CC   corneal endothelium for gene therapy for cystic fibrosis, asthma and
CC   also various cancers and viral infections for example human
CC   immunodeficiency virus (HIV) infection. It is also useful as a vaccine
CC   or for therapy of neuroblastoma and the effective transfection of
CC   primary smooth muscle cells, cardiac myocytes and haematopoietic cells.
CC   Haematopoietic cell transfection enables gene therapy, gene vaccination
CC   and antisense therapy of diseases involving haematopoietic cells,
```

CC including leukaemia and bone marrow stem cell disorders, for example
CC transfection of a cytokine gene may be used for adjuvant immunotherapy.
CC Transfection of corneal endothelium is useful for treatment of eye
CC disease affecting the cornea or corneal organ transplants, for example
CC in glaucoma. A gene that prevents proliferation of cells in blood
CC vessel walls is introduced using complex of the invention to reduce
CC restenosis. The present sequence is integrin-targetting oligolysine
CC peptide used in the exemplification of the invention.
XX
SQ Sequence 28 AA;

Query Match 100.0%; Score 65; DB 23; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.082;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 19 CDCRGDCFC 27

RESULT 72
AAW82730
ID AAW82730 standard; Protein; 277 AA.
XX
AC AAW82730;
XX
DT 29-MAR-1999 (first entry)
XX
DE Adenovirus SCAR.RGD protein.
XX
KW SCAR.RGD; chimeric protein; adenoviral fibre protein; monomer;
KW trimerisation domain; affinity; substrate; gene therapy vector;
KW attachment; interaction assay; infection.
XX
OS Mastadenovirus.
OS Synthetic.
XX
PN WO9854346-A1.
XX
PD 03-DEC-1998.
XX
PF 28-MAY-1998; 98WO-US11024.
XX
PR 16-JAN-1998; 98US-0071668.
PR 28-MAY-1997; 97US-0047849.
XX
PA (GENV-) GENVEC INC.
XX
PI Brough DE, Einfeld D, Kovesdi I, Lizonova A, Roelvink PW;
PI Wickham TJ, Yonehiro G;
XX
DR WPI; 1999-059848/05.
DR N-PSDB; AAV72026.
XX
PT New adenoviral fibre trimer with reduced binding to native substrate
PT - useful for, e.g. preparing gene therapy vector with minimal
PT ectopic infection for in vitro applications
XX
PS Example 8; Page 59-60; 103pp; English.
XX
CC This sequence represents a novel adenovirus chimeric protein, SCAR.RGD.
CC This protein is used in a method for the construction of novel monomers
CC having an N-terminus of an adenoviral fibre protein and a trimerisation
CC domain. Such monomers have lower affinity for native substrate than the
CC native adenoviral fibre trimer. Cell lines containing such monomers are
CC used (i) to propagate adenovirus for use as gene therapy vectors (for in
CC vitro or in vivo applications, (ii) as reagents for studying adenoviral
CC attachment and infection, and (iii) in receptor-ligand interaction
CC assays. The new viruses produce minimal ectopic infection (they can not
CC infect native host cells) so are safer as vectors and can be engineered
CC for selective targeting to other cells.
XX
SQ Sequence 277 AA;

Query Match 100.0%; Score 65; DB 20; Length 277;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 248 CDCRGDCFC 256

Search completed: December 3, 2002, 09:16:26
Job time : 37 secs

GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 09:15:42 ; Search time 14 Seconds
(without alignments)
18.915 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 35

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 250 summaries

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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	2	US-08-701-124-3	Sequence 3, Appli
2	65	100.0	9	2	US-08-286-861-16	Sequence 16, Appl
3	65	100.0	9	3	US-09-026-633-1	Sequence 1, Appli
4	65	100.0	9	3	US-09-130-225-3	Sequence 3, Appli
5	65	100.0	9	4	US-09-124-671-33	Sequence 33, Appl
6	65	100.0	9	4	US-09-258-754-211	Sequence 211, App
7	65	100.0	9	4	US-09-139-802-1	Sequence 1, Appli
8	65	100.0	9	4	US-09-042-107-211	Sequence 211, App
9	65	100.0	9	4	US-09-320-424-20	Sequence 20, Appl
10	65	100.0	9	4	US-09-426-680-12	Sequence 12, Appl
11	65	100.0	9	4	US-09-455-061-3	Sequence 3, Appli
12	65	100.0	9	4	US-09-174-943-8	Sequence 8, Appli
13	65	100.0	9	4	US-09-315-127-18	Sequence 18, Appl
14	65	100.0	11	2	US-08-717-169-17	Sequence 17, Appl
15	65	100.0	11	2	US-08-286-861-10	Sequence 10, Appl
16	65	100.0	11	4	US-09-139-802-16	Sequence 16, Appl
17	65	100.0	11	4	US-09-315-127-22	Sequence 22, Appl
18	65	100.0	12	2	US-08-701-124-79	Sequence 79, Appl
19	65	100.0	12	3	US-09-130-225-79	Sequence 79, Appl
20	65	100.0	12	4	US-09-455-061-79	Sequence 79, Appl
21	65	100.0	12	4	US-09-424-656-10	Sequence 10, Appl
22	65	100.0	14	2	US-08-701-124-68	Sequence 68, Appl
23	65	100.0	14	3	US-09-130-225-68	Sequence 68, Appl
24	65	100.0	14	4	US-09-455-061-68	Sequence 68, Appl
25	65	100.0	14	4	US-09-101-751A-93	Sequence 93, Appl
26	65	100.0	15	2	US-08-701-124-31	Sequence 31, Appl
27	65	100.0	15	3	US-09-130-225-31	Sequence 31, Appl
28	65	100.0	15	4	US-09-426-680-7	Sequence 7, Appli
29	65	100.0	15	4	US-09-455-061-31	Sequence 31, Appl
30	65	100.0	15	4	US-09-315-127-21	Sequence 21, Appl
31	65	100.0	21	4	US-09-450-972-2	Sequence 2, Appli
32	65	100.0	23	4	US-09-450-972-5	Sequence 5, Appli
33	65	100.0	24	2	US-08-701-124-49	Sequence 49, Appl
34	65	100.0	24	3	US-09-130-225-49	Sequence 49, Appl
35	65	100.0	24	4	US-09-455-061-49	Sequence 49, Appl

ALIGNMENTS

RESULT 1
US-08-701-124-3
; Sequence 3, Application US/08701124
; Patent No. 5846782
; GENERAL INFORMATION:
; APPLICANT: Wickham, Thomas J.
; APPLICANT: Roelvink, Petrus W.
; APPLICANT: Kovesdi, Imre
; TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
; TITLE OF INVENTION: CONSTRAINED PEPTIDE MOTIFS
; NUMBER OF SEQUENCES: 80
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Leydig, Voit & Mayer, Ltd.
; STREET: Two Prudential Plaza - 49th Floor
; CITY: Chicago
; STATE: Illinois
; COUNTRY: USA
; ZIP: 60601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/701,124
; FILING DATE: 21-AUG-1996
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-701-124-3

Query Match 100.0%; Score 65; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 2
US-08-286-861-16
; Sequence 16, Application US/08286861
; Patent No. 5981478
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Koivunen, Erkki
; TITLE OF INVENTION: No. 5981478el Integrin-Binding Peptides
; NUMBER OF SEQUENCES: 46
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Campbell and Flores
; STREET: 4370 La Jolla Village Drive, Suite 700
; CITY: San Diego
; STATE: California
; COUNTRY: USA
; ZIP: 92122

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;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/286,861
;      FILING DATE:  04-AUG-1994
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 9992
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 535-9001
;      TELEFAX:  (619) 535-8949
;  INFORMATION FOR SEQ ID NO:  16:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-08-286-861-16

  Query Match           100.0%;  Score 65;  DB 2;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 3
US-09-026-633-1
; Sequence 1, Application US/09026633
; Patent No. 6025328
; GENERAL INFORMATION:
;  APPLICANT: McMorris, Trevor C.
;  APPLICANT: Kelner, Michael J.
;  TITLE OF INVENTION: Antitumor agents
;  FILE REFERENCE: 103.008US1
;  CURRENT APPLICATION NUMBER: US/09/026,633
;  CURRENT FILING DATE: 1998-02-20
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Amino acid sequence
US-09-026-633-1

  Query Match           100.0%;  Score 65;  DB 3;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 4
US-09-130-225-3
; Sequence 3, Application US/09130225
; Patent No. 6057155
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/130,225
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-130-225-3

  Query Match           100.0%;  Score 65;  DB 3;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 5
US-09-124-671-33
; Sequence 33, Application US/09124671A
; Patent No. 6160088
; GENERAL INFORMATION:
;  APPLICANT: Rothman, James
;  APPLICANT: Mayhew, Mark
;  APPLICANT: Hoe, Mee
;  TITLE OF INVENTION: KDEL RECEPTOR INHIBITORS
;  FILE REFERENCE: 31488
;  CURRENT APPLICATION NUMBER: US/09/124,671A
;  CURRENT FILING DATE: 1998-07-29
;  NUMBER OF SEQ ID NOS: 42
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: alpha-five integrin binding motif
US-09-124-671-33

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 6
US-09-258-754-211
; Sequence 211, Application US/09258754
```

```
; Patent No. 6174687
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT: Pasqualini, Renata
;  APPLICANT: Rajotte, Daniel
;  TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
;  TITLE OF INVENTION: Membrane Dipeptidase
;  FILE REFERENCE: P-LJ 3443
;  CURRENT APPLICATION NUMBER: US/09/258,754
;  CURRENT FILING DATE: 1999-02-26
;  EARLIER APPLICATION NUMBER: 09/042,107
;  EARLIER FILING DATE: 1998-03-13
;  NUMBER OF SEQ ID NOS: 452
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 211
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
S-09-258-754-211

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 7
US-09-139-802-1
; Sequence 1, Application US/09139802
; Patent No. 6180084
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT: Pasqualini, Renata
;  TITLE OF INVENTION: NGR Receptor and Methods of Identifying Tumor Homing
;  TITLE OF INVENTION: Molecules That Home to Angiogenic Vasculature Using
;  TITLE OF INVENTION: Same
;  FILE REFERENCE: P-LJ 3203
;  CURRENT APPLICATION NUMBER: US/09/139,802
;  CURRENT FILING DATE: 1998-08-25
;  EARLIER APPLICATION NUMBER: 08/926,914
;  EARLIER FILING DATE: 1997-09-10
;  EARLIER APPLICATION NUMBER: 08/710,067
;  EARLIER FILING DATE: 1996-09-10
;  NUMBER OF SEQ ID NOS: 226
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   OTHER INFORMATION: Peptide
US-09-139-802-1

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 8
US-09-042-107-211
; Sequence 211, Application US/09042107
; Patent No. 6232287
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT: Pasqualini, Renata
;  TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
;  TITLE OF INVENTION: Tissues
;  FILE REFERENCE: P-LJ 2892
;  CURRENT APPLICATION NUMBER: US/09/042,107
;  CURRENT FILING DATE: 1998-03-13
;  NUMBER OF SEQ ID NOS: 436
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 211
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-042-107-211

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 9
US-09-320-424-20
; Sequence 20, Application US/09320424
; Patent No. 6284236
; GENERAL INFORMATION:
;  APPLICANT: Wiley, Steven R.
;  APPLICANT: Goodwin, Raymond G.
;  TITLE OF INVENTION: Cytokine that Induces Apoptosis
;  FILE REFERENCE: 2835-E
;  CURRENT APPLICATION NUMBER: US/09/320,424
;  CURRENT FILING DATE: 1999-05-26
;  EARLIER APPLICATION NUMBER: 09/190,046
;  EARLIER FILING DATE: 1998-11-10
;  EARLIER APPLICATION NUMBER: 09/048,641
;  EARLIER FILING DATE: 1998-03-26
;  EARLIER APPLICATION NUMBER: 08/670,354
;  EARLIER FILING DATE: 1996-06-25
;  EARLIER APPLICATION NUMBER: 08/548,368
;  EARLIER FILING DATE: 1995-11-01
;  EARLIER APPLICATION NUMBER: 08/496,632
;  EARLIER FILING DATE: 1995-06-29
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: artificial
;   OTHER INFORMATION: peptide
US-09-320-424-20

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 10
US-09-426-680-12
; Sequence 12, Application US/09426680
; Patent No. 6287857
; GENERAL INFORMATION:
;  APPLICANT: Catherine R. O'Riordan
```

```
;  APPLICANT: Samuel C. Wadsworth
;  TITLE OF INVENTION: Nucleic Acid Delivery Vehicles
;  FILE REFERENCE: GA0103USB2
;  CURRENT APPLICATION NUMBER: US/09/426,680
;  CURRENT FILING DATE: 1999-10-25
;  EARLIER APPLICATION NUMBER: PCT/US99/02680
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 12
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: PEPTIDE
;   LOCATION: (0)...(0)
US-09-426-680-12

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 11
US-09-455-061-3
; Sequence 3, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-455-061-3

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 12
US-09-174-943-8
; Sequence 8, Application US/09174943
; Patent No. 6420110
; GENERAL INFORMATION:
;  APPLICANT: GYURIS, JENO
;  APPLICANT: MORRIS, AARON J.
;  TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION: PEPTIDES
;  FILE REFERENCE: MIV-106.01
;  CURRENT APPLICATION NUMBER: US/09/174,943
;  CURRENT FILING DATE: 1998-10-19
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RGD motif
US-09-174-943-8

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 13
US-09-315-127-18
; Sequence 18, Application US/09315127
; Patent No. 6448390
; GENERAL INFORMATION:
;  APPLICANT: The University of Tennessee, c/o Richard Cox
;  TITLE OF INVENTION: Stable Envelope Proteins for Retroviral, Viral and
;  TITLE OF INVENTION: Liposome Vectors and Use in Gene and Drug Therapy
;  FILE REFERENCE: 44137-5023, U. of Tennessee
;  CURRENT APPLICATION NUMBER: US/09/315,127
;  CURRENT FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 18
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SEQ. ID NO.
;   OTHER INFORMATION: 14, alpha Vbeta3-binding peptide
US-09-315-127-18

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 14
US-08-717-169-17
; Sequence 17, Application US/08717169
; Patent No. 5922676
```

```
;  GENERAL INFORMATION:
;    APPLICANT:  Pasqualini, Renata
;    APPLICANT:  Ruoslahti, Erkki
;    TITLE OF INVENTION:  Methods of Inhibiting Angiogenesis and
;    TITLE OF INVENTION:  Ameliorating Cancer By Using Superfibronectin
;    NUMBER OF SEQUENCES:  18
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell & Flores LLP
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/717,169
;      FILING DATE:  20-SEP-1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn A.
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LJ 2017
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 535-9001
;      TELEFAX:  (619) 535-8949
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-717-169-17

  Query Match             100.0%;  Score 65;  DB 2;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       2 CDCRGDCFC 10


RESULT 15
US-08-286-861-10
; Sequence 10, Application US/08286861
; Patent No. 5981478
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. 5981478el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell and Flores
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/286,861
;      FILING DATE:  04-AUG-1994
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 9992
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 535-9001
;      TELEFAX:  (619) 535-8949
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-08-286-861-10

  Query Match             100.0%;  Score 65;  DB 2;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       2 CDCRGDCFC 10


RESULT 16
US-09-139-802-16
; Sequence 16, Application US/09139802
; Patent No. 6180084
; GENERAL INFORMATION:
;  APPLICANT: Ruoslahti, Erkki
;  APPLICANT: Pasqualini, Renata
;  TITLE OF INVENTION: NGR Receptor and Methods of Identifying Tumor Homing
;  TITLE OF INVENTION: Molecules That Home to Angiogenic Vasculature Using
;  TITLE OF INVENTION: Same
;  FILE REFERENCE: P-LJ 3203
;  CURRENT APPLICATION NUMBER: US/09/139,802
;  CURRENT FILING DATE: 1998-08-25
;  EARLIER APPLICATION NUMBER: 08/926,914
;  EARLIER FILING DATE: 1997-09-10
;  EARLIER APPLICATION NUMBER: 08/710,067
;  EARLIER FILING DATE: 1996-09-10
;  NUMBER OF SEQ ID NOS: 226
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
;   LENGTH: 11
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   OTHER INFORMATION: Peptide
US-09-139-802-16

  Query Match             100.0%;  Score 65;  DB 4;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       2 CDCRGDCFC 10


RESULT 17
US-09-315-127-22
; Sequence 22, Application US/09315127
; Patent No. 6448390
; GENERAL INFORMATION:
;  APPLICANT: The University of Tennessee, c/o Richard Cox
;  TITLE OF INVENTION: Stable Envelope Proteins for Retroviral, Viral and
;  TITLE OF INVENTION: Liposome Vectors and Use in Gene and Drug Therapy
;  FILE REFERENCE: 44137-5023, U. of Tennessee
;  CURRENT APPLICATION NUMBER: US/09/315,127
;  CURRENT FILING DATE: 1999-05-20
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;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
;   LENGTH: 11
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SEQ. ID NO.
;   OTHER INFORMATION: 18, peptide inhibiting attachment of envelope
;   OTHER INFORMATION: protein to alphaVbeta3 integrin
US-09-315-127-22

  Query Match             100.0%;  Score 65;  DB 4;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.0045;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       2 CDCRGDCFC 10


RESULT 18
US-08-701-124-79
; Sequence 79, Application US/08701124
; Patent No. 5846782
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/701,124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  79:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-701-124-79

  Query Match             100.0%;  Score 65;  DB 2;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       3 CDCRGDCFC 11


RESULT 19
US-09-130-225-79
; Sequence 79, Application US/09130225
; Patent No. 6057155
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/130,225
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  79:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-130-225-79

  Query Match             100.0%;  Score 65;  DB 3;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       3 CDCRGDCFC 11


RESULT 20
US-09-455-061-79
; Sequence 79, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
```

```
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;    INFORMATION FOR SEQ ID NO:  79:
;      SEQUENCE CHARACTERISTICS:
;        LENGTH:  12 amino acids
;        TYPE:  amino acid
;        STRANDEDNESS:  single
;        TOPOLOGY:  linear
;      MOLECULE TYPE:  peptide
US-09-455-061-79

  Query Match           100.0%;  Score 65;  DB 4;  Length 12;
  Best Local Similarity  100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 21
US-09-424-656-10
; Sequence 10, Application US/09424656
; Patent No. 6458026
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  INTEGRIN-TARGETING VECTORS HAVING
;    TITLE OF INVENTION:  ENHANCED TRANSFECTION ACTIVITY
;    NUMBER OF SEQUENCES:  16
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/424,656
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  GB 9711115.7
;      FILING DATE:  29-MAY-1997
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  circular
;    MOLECULE TYPE:  peptide
US-09-424-656-10

  Query Match           100.0%;  Score 65;  DB 4;  Length 12;
  Best Local Similarity  100.0%;  Pred. No. 0.0048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 22
US-08-701-124-68
; Sequence 68, Application US/08701124
; Patent No. 5846782
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/701,124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  68:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-701-124-68

  Query Match           100.0%;  Score 65;  DB 2;  Length 14;
  Best Local Similarity  100.0%;  Pred. No. 0.0055;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 23
US-09-130-225-68
; Sequence 68, Application US/09130225
; Patent No. 6057155
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/130,225
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  68:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-130-225-68

  Query Match           100.0%;  Score 65;  DB 3;  Length 14;
  Best Local Similarity  100.0%;  Pred. No. 0.0055;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
```

```
Db      3 CDCRGDCFC 11


RESULT 24
US-09-455-061-68
; Sequence 68, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;  INFORMATION FOR SEQ ID NO:  68:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-455-061-68

  Query Match             100.0%;  Score 65;  DB 4;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0.0055;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 25
US-09-101-751A-93
; Sequence 93, Application US/09101751A
; Patent No. 6465253
; GENERAL INFORMATION:
;  APPLICANT: WICKHAM, THOMAS J.
;  APPLICANT:  KOVESDI, IMRE
;  APPLICANT:  BROUGH, DOUGLAS E.
;  TITLE OF INVENTION: VECTORS AND METHODS FOR GENE TRANSFER TO CELLS
;  FILE REFERENCE: 85710
;  CURRENT APPLICATION NUMBER: US/09/101,751A
;  CURRENT FILING DATE:  1999-01-29
;  PRIOR APPLICATION NUMBER: WO 96US19150
;  PRIOR FILING DATE: 1996-11-27
;  PRIOR APPLICATION NUMBER: US 08/700,846
;  PRIOR FILING DATE: 1996-08-21
;  PRIOR APPLICATION NUMBER: US 08/701,124
;  PRIOR FILING DATE: 1996-08-21
;  PRIOR APPLICATION NUMBER: US 08/563,368
;  PRIOR FILING DATE: 1995-11-28
;  NUMBER OF SEQ ID NOS: 94
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 93
;   LENGTH: 14
;   TYPE: PRT
;   ORGANISM: Unknown Organism
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: ()..()
;   OTHER INFORMATION: Description of Unknown Organism: Artificial
;   OTHER INFORMATION: Sequence
US-09-101-751A-93

  Query Match             100.0%;  Score 65;  DB 4;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0.0055;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      3 CDCRGDCFC 11


RESULT 26
US-08-701-124-31
; Sequence 31, Application US/08701124
; Patent No. 5846782
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/701,124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  31:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-701-124-31

  Query Match             100.0%;  Score 65;  DB 2;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0.0058;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12


RESULT 27
US-09-130-225-31
; Sequence 31, Application US/09130225
; Patent No. 6057155
```

```
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/130,225
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  31:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-130-225-31

  Query Match           100.0%;  Score 65;  DB 3;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0.0058;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       4 CDCRGDCFC 12


RESULT 28
US-09-426-680-7
; Sequence 7, Application US/09426680
; Patent No. 6287857
; GENERAL INFORMATION:
;  APPLICANT: Catherine R. O'Riordan
;  APPLICANT: Samuel C. Wadsworth
;  TITLE OF INVENTION: Nucleic Acid Delivery Vehicles
;  FILE REFERENCE: GA0103USB2
;  CURRENT APPLICATION NUMBER: US/09/426,680
;  CURRENT FILING DATE: 1999-10-25
;  EARLIER APPLICATION NUMBER: PCT/US99/02680
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 7
;   LENGTH: 15
;   TYPE: PRT
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: DISULFID
;   LOCATION: (0)...(0)
;   NAME/KEY: PEPTIDE
;   LOCATION: (0)...(0)
US-09-426-680-7

  Query Match           100.0%;  Score 65;  DB 4;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0.0058;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       3 CDCRGDCFC 11


RESULT 29
US-09-455-061-31
; Sequence 31, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;  INFORMATION FOR SEQ ID NO:  31:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-455-061-31

  Query Match           100.0%;  Score 65;  DB 4;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0.0058;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       4 CDCRGDCFC 12


RESULT 30
US-09-315-127-21
; Sequence 21, Application US/09315127
; Patent No. 6448390
; GENERAL INFORMATION:
;  APPLICANT: The University of Tennessee, c/o Richard Cox
;  TITLE OF INVENTION: Stable Envelope Proteins for Retroviral, Viral and
;  TITLE OF INVENTION: Liposome Vectors and Use in Gene and Drug Therapy
;  FILE REFERENCE: 44137-5023, U. of Tennessee
;  CURRENT APPLICATION NUMBER: US/09/315,127
;  CURRENT FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
;   LENGTH: 15
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
```

```
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SEQ. ID NO.
;   OTHER INFORMATION: 17, peptide encoded by cDNA between Ser6 and Pro7
;   OTHER INFORMATION: of envelope protein
US-09-315-127-21

  Query Match             100.0%;  Score 65;  DB 4;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0.0058;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      4 CDCRGDCFC 12


RESULT 31
US-09-450-972-2
; Sequence 2, Application US/09450972
; Patent No. 6440728
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  PHAGE VECTORS AND METHODS OF USE
;    NUMBER OF SEQUENCES:  6
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/450,972
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/072,222
;      FILING DATE:  22-JAN-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/049,072
;      FILING DATE:  09-JUN-1997
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  protein
US-09-450-972-2

  Query Match             100.0%;  Score 65;  DB 4;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 0.0077;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db     12 CDCRGDCFC 20


RESULT 32
US-09-450-972-5
; Sequence 5, Application US/09450972
; Patent No. 6440728
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  PHAGE VECTORS AND METHODS OF USE
;    NUMBER OF SEQUENCES:  6
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/450,972
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/072,222
;      FILING DATE:  22-JAN-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/049,072
;      FILING DATE:  09-JUN-1997
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  23 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  protein
US-09-450-972-5

  Query Match             100.0%;  Score 65;  DB 4;  Length 23;
  Best Local Similarity   100.0%;  Pred. No. 0.0083;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db     14 CDCRGDCFC 22


RESULT 33
US-08-701-124-49
; Sequence 49, Application US/08701124
; Patent No. 5846782
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/701,124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  49:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-701-124-49

  Query Match             100.0%;  Score 65;  DB 2;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 0.0086;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db     15 CDCRGDCFC 23


RESULT 34
US-09-130-225-49
; Sequence 49, Application US/09130225
; Patent No. 6057155
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
```

```
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/130,225
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  49:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-130-225-49

  Query Match             100.0%;  Score 65;  DB 3;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 0.0086;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db      15 CDCRGDCFC 23


RESULT 35
US-09-455-061-49
; Sequence 49, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;  INFORMATION FOR SEQ ID NO:  49:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-455-061-49

  Query Match             100.0%;  Score 65;  DB 4;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 0.0086;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db      15 CDCRGDCFC 23


Search completed: December  3, 2002, 09:16:46
Job time : 14 secs
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GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 08:15:07 ; Search time 34 Seconds
(without alignments)
35.272 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 130868

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
7: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
8: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
9: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
10: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
15: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
16: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
17: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*
18: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
19: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:*
20: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
21: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
22: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	16	AAR76200	Alphav/beta3 and a
2	65	100.0	9	19	AAW60289	Tumour homing pept
3	65	100.0	9	19	AAW56034	Chimeric adenoviru
4	65	100.0	9	20	AAY43233	RGD-containing pep
5	65	100.0	9	20	AAY48821	Membrane dipeptida
6	65	100.0	9	20	AAY42255	Synthetic RGD-4C p
7	65	100.0	9	20	AAW93626	NGR receptor bindi
8	65	100.0	9	21	AAB21701	Human breast tumou
9	65	100.0	9	21	AAB17346	Integrin-binding p
10	65	100.0	9	21	AAB17928	TPO-mimetic peptid
11	65	100.0	9	21	AAB17964	Integrin-binding p
12	65	100.0	9	21	AAY90211	Alphav integrin ta
13	65	100.0	9	21	AAY44970	RGD-4C targeting s
14	65	100.0	9	21	AAY54271	Alpha Vbeta-3 bind
15	65	100.0	9	22	AAE11044	RGD-containing pep
16	65	100.0	9	22	AAE06279	Tumour homing pept
17	65	100.0	9	22	AAB97086	Integrin-binding p
18	65	100.0	9	22	AAB20271	Peptide that speci
19	65	100.0	9	22	AAB50242	Enhanced infectivi
20	65	100.0	9	23	ABB79525	RGD motif-containi
21	65	100.0	9	23	AAU98837	Tumour homing pept
22	65	100.0	9	23	ABB76442	RGD-4C Peptide wit
23	65	100.0	9	23	ABB08066	Cyclic RGD (cRGD)
24	65	100.0	9	23	ABG35079	RGD-4C-beta gal ph
25	65	100.0	9	23	AAU79138	Synthetic peptide
26	65	100.0	9	23	AAE17983	Human ligand #3 at
27	65	100.0	9	23	AAG78427	Cyclic peptide tha
28	65	100.0	9	23	AAU75609	Synthetic peptide
29	65	100.0	9	23	AAM48795	Tumour-targetting
30	65	100.0	9	23	AAU81110	Integrin-antagonis
31	65	100.0	9	23	AAU81134	Integrin-antagonis
32	65	100.0	9	23	ABB72945	Integrin binding p
33	65	100.0	9	23	ABB72961	Integrin binding p
34	65	100.0	9	23	AAM51995	Drug targeting pep
35	59	90.8	9	16	AAR79073	Alphav/beta3 and a
36	59	90.8	9	21	AAB17347	Integrin-binding p
37	59	90.8	9	23	AAU81135	Integrin-antagonis
38	59	90.8	9	23	ABB72946	Integrin binding p
39	56	86.2	9	23	AAM51996	Integrin receptor
40	51	78.5	9	16	AAR76199	Alphav/beta3 and a
41	51	78.5	9	19	AAW56035	Chimeric adenoviru
42	51	78.5	9	21	AAB17345	Integrin-binding p
43	51	78.5	9	23	AAU81086	RGD/NGR derived pe
44	51	78.5	9	23	ABB72944	Integrin binding p
45	50	76.9	9	23	AAM51997	Integrin receptor

ALIGNMENTS

RESULT 1
AAR76200
ID AAR76200 standard; peptide; 9 AA.
XX
AC AAR76200;
XX
DT 24-JAN-1996 (first entry)
XX
DE Alphav/beta3 and alphav/beta5 integrin binding peptide #4.
XX
KW High affinity; integrin binding peptide; alpha5/beta1; alphav/beta5;
KW alphav/beta3; RGD; stable configuration; wound healing;
KW osteoclast attachemnt; bone; angiogenesis; metastasis; tumour;
KW smooth muscle cell migration.
XX
OS Synthetic.
XX
PN WO9514714-A1.
XX
PD 01-JUN-1995.
XX
PF 22-NOV-1994; 94WO-US13542.
XX
PR 04-AUG-1994; 94US-0286861.
PR 24-NOV-1993; 93US-0158001.
XX
PA (LJOL-) LA JOLLA CANCER RES FOUND.
XX
PI Koivunen E, Ruoslahti E;
XX
DR WPI; 1995-206899/27.
XX
PT High affinity integrin binding peptides - can be used to attach

PT cells to a substrate, inhibit the attachment of osteoclasts to bone,
PT promote wound healing, inhibit angiogenesis, metastasis of tumours
PT and migration of smooth muscle cells
XX
PS Claim 21; Page 62; 86pp; English.
XX
CC The sequences given in AAR76185-200 and AAR79073-94 are high affinity
CC integrin binding peptides which bind to various integrins. Peptides
CC which bind to alpha5/beta1 integrins contain the motifs given in
CC AAR76185-86 and peptides which bind to alphav/beta5 and alphav/beta3
CC integrins contain the motif given in AAR76187. Alphav/beta5 integrins
CC are also bound by RGD containing peptides. These peptides assume a
CC conformationally stabilised configuration which is due to the
CC formation of a disulphide bond, a peptide bond or a lactam bond.
CC These peptides may be used for isolating the complementary integrin
CC from a sample mixture by contacting them under ionic conditions to
CC allow binding of the integrin to the peptide and then separating the
CC integrin from the peptide. They can be used for attaching cells to
CC a substrate, by binding them to the substrate with the cell. The
CC peptides promote wound healing when applied locally and inhibit the
CC attachment of osteoclasts to bone. They inhibit angiogenesis,
CC metastasis of tumours and migration of smooth muscle cells.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 16; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 2
AAW60289
ID AAW60289 standard; peptide; 9 AA.
XX
AC AAW60289;
XX
DT 24-AUG-1998 (first entry)
XX
DE Tumour homing peptide of the invention.
XX
KW Tumour homing peptide; in vivo panning;
KW alpha-V-containing integrin binding motif; tumour.
XX
OS Unidentified.
XX
PN WO9810795-A2.
XX
PD 19-MAR-1998.
XX
PF 10-SEP-1997; 97WO-US16086.
XX
PR 10-SEP-1996; 96US-0710067.
XX
PA (BURN-) BURNHAM INST.
XX
PI Pasqualini R, Ruoslahti E;
XX
DR WPI; 1998-207151/18.
XX
PT Tumour homing molecules and their conjugates - useful for, e g.
PT directing linked moiety to tumour containing angiogenic vasculature
XX
PS Claim 6; Page 91; 105pp; English.
XX
CC The present peptide represents a tumour homing peptide, and is produced
CC by in vivo panning. The peptide has an alpha-V-containing integrin
CC binding motif, Arg-Gly-Asp (RGD). The in vivo panning comprises
CC administering a library of diverse peptides to a subject having a
CC tumour, collecting a sample of the tumour, identifying a peptide that
CC homes to the tumour, collecting a sample of normal tissue corresponding
CC to the tumour, and determining that the peptide that homes to the
CC tumour is not present in the normal tissue. The tumour homing peptide can
CC be linked to a moiety (e.g. doxorubicin), and used to direct the
CC moiety to a tumour.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 19; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 3
AAW56034
ID AAW56034 standard; peptide; 9 AA.
XX
AC AAW56034;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chimeric adenovirus fiber protein non-native amino acid sequence 3.
XX
KW Chimeric; adenovirus; fiber protein; binding; targeting; coat protein;
KW constrained peptide motif; gene therapy; cancer; heart disease;
KW autoimmune disorder.
XX
OS Synthetic.
OS Mastadenovirus.
XX
PN WO9807865-A1.
XX
PD 26-FEB-1998.
XX
PF 21-AUG-1997; 97WO-US14719.
XX
PR 21-AUG-1996; 96US-0701124.
XX
PA (GENV-) GENVEC INC.
XX
PI Kovesdi I, Roelvink PW, Wickham TJ;
XX
DR WPI; 1998-169169/15.
XX
PT Chimeric adenovirus fibre proteins - containing non-native amino
PT acid sequence to provide for binding and entry into cells,
PT especially for gene therapy
XX
PS Claim 7; Page 68; 124pp; English.
XX
CC The present sequence represents a specifically claimed non-native amino
CC acid sequence from a chimeric adenovirus fibre protein (AFP) of the
CC present invention. The non-native amino acid sequence allows the
CC chimeric fibre (or a vector comprising the chimeric fibre) to more
CC efficiently bind to and enter cells. The products can be used for gene
CC therapy, for treating cancer, e.g. melanoma, glioma and lung cancers as
CC well as genetic disorders, e.g. cystic fibrosis, haemophilia and
CC muscular dystrophy as well as pathogenic infections, e.g. HIV,
CC tuberculosis and hepatitis and also for heart disease, to e.g. prevent
CC restenosis following angioplasty or to promote angiogenesis to reperfuse
CC necrotic tissue, and in autoimmune disorders, e.g. Crohn's disease,
CC colitis, rheumatoid arthritis, and Alzheimer's disease.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 19; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 4
AAY43233
ID AAY43233 standard; peptide; 9 AA.
XX
AC AAY43233;
XX
DT 13-JAN-2000 (first entry)
XX
DE RGD-containing peptide #12.
XX
KW Nucleic acid delivery vehicle; bifunctional complex; transgene; CFTR;
KW cell surface targeting; cell surface molecule binding region; integrin;
KW cystic fibrosis transmembrane regulator; alpha1-antitrypsin;
KW suicide gene; beta-glucocerebrosidase; cell transfection; cell infection;
KW RGD peptide.
XX
OS Synthetic.
XX
PN WO9940214-A2.
XX
PD 12-AUG-1999.
XX
PF 08-FEB-1999; 99WO-US02680.
XX
PR 09-FEB-1998; 98US-0020483.
PR 06-NOV-1998; 98US-0107471.
XX
PA (GENZ) GENZYME CORP.
XX
PI O'riordan C, Romanczuk H, Wadsworth SC;
XX
DR WPI; 1999-610583/52.
XX
PT Nucleic acid delivery vehicles useful for transfecting and infecting a
PT target cell -
XX
PS Claim 22; Page 39; 118pp; English.
XX
CC This sequence represents a RGD-containing peptide that can be used in a
CC bifunctional complex used in the nucleic acid delivery vehicle (I) of the
CC invention. (I) is for transfecting and/or infecting a target cell, and
CC comprises a transgene and a bifunctional complex (B) that targets the
CC nucleic acid delivery vehicle to the cell surface. (B) comprises a
CC delivery vehicle binding portion, a cell surface molecule binding portion
CC (such as this sequence) and a linker connecting them. The delivery
CC vehicle can be specifically targeted to the cell via the binding to cell
CC surface molecules. (I) can be used to target cells, which express
CC integrins such as, HT-29 colon carcinoma cells, lymphocytes and
CC monocytes, blood platelets, SMC-90 human lung fibroblast, MG(63)
CC osteosarcoma cell line, vascular endothelial cells and melanoma cells.
CC (I) is useful for delivery of nucleic acids encoding CFTR (cystic
CC fibrosis transmembrane regulator), alpha1-antitrypsin,
CC beta-glucocerebrosidase and suicide genes. The construct increases the
CC efficiency of cellular uptake of (I). The constructs also enable the
CC transfection/infection of cells that are normally refractory to
CC transfection/infection by targeting cell receptors that are present on
CC such cells.
XX
SQ Sequence 9 AA;

```
  Query Match             100.0%;  Score 65;  DB 20;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 5
AAY48821
ID AAY48821 standard; Peptide; 9 AA.
XX
AC AAY48821;
XX
DT 10-DEC-1999 (first entry)
XX
DE Membrane dipeptidase-binding retina homing peptide #7.
XX
KW Homing peptide; organ; tissue; lung; pancreas; skin; retina; MDP;
KW prostate; ovary; lymph node; adrenal gland; liver; gut; tumour;
KW membrane dipeptidase.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9946284-A2.
XX
PD 16-SEP-1999.
XX
PF 10-MAR-1999; 99WO-US05284.
XX
PR 13-MAR-1998; 98US-0042107.
PR 26-FEB-1999; 99US-0042107.
XX
PA (BURN-) BURNHAM INST.
XX
PI Rajotte D, Pasqualini R, Ruoslahti EI;
XX
DR WPI; 1999-571717/48.
XX
PT New peptides which selectively home to organs or tissues, used for,
PT e.g. identifying target ligands and for therapy of pathological
PT conditions -
XX
PS Example 6; Page 149; 193pp; English.
XX
CC The present invention describes peptides that selectively home to a
CC tissue or organ. The peptides can be used for identifying an organ
CC or tissue, for identifying a target molecule expressed by an organ or
CC tissue or for treating an organ or tissue pathology, where the organ or
CC tissue is selected from prostate, lung, skin, retina, pancreas, gut,
CC ovary, adrenal gland, liver, and lymph node. The peptide bind to the
CC membrane dipeptidase (MDP). AAY48618 to AAY49066 represent sequences
CC which are used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

```
  Query Match             100.0%;  Score 65;  DB 20;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 6
AAY42255
ID AAY42255 standard; peptide; 9 AA.
XX
AC AAY42255;
XX
DT 01-DEC-1999 (first entry)
XX
DE Synthetic RGD-4C peptide.
XX
KW Adenovirus; gene therapy; coxsackievirus adenovirus receptor;
KW CAR; cancer; cystic fibrosis; muscular dystrophy.
XX
OS Synthetic.

XX
PN WO9939734-A1.
XX
PD 12-AUG-1999.
XX
PF 05-FEB-1999; 99WO-US02549.
XX
PR 06-FEB-1998; 98US-0073947.
PR 10-SEP-1998; 98US-0099801.
XX
PA (UABR-) UAB RES FOUND.
XX
PI Curiel DT, Krasnykh VN, Dmitriev I;
XX
DR WPI; 1999-539951/45.
XX
PT Recombinant adenovirus vectors with modified fiber knob loops, useful
PT in gene therapy -
XX
PS Example 21; Page 49; 126pp; English.
XX
CC This sequence represents a synthetic RGD-4C peptide. DNA encoding
CC this sequence was cloned into the sequence encoding the HI loop of the
CC adenovirus fibre protein knob domain. This was then used in the
CC construction of plasmids encoding a modified fibre protein. Recombinant
CC adenovirus genomes were generated by homologous DNA recombination in E.
CC coli, before excision of the newly generated genome for virus rescue.
CC The knob domain of the adenovirus fibre protein mediates the initial
CC binding and recognition of the coxsackievirus and adenovirus receptor
CC (CAR) on the cell surface. The HI loop protrudes from the knob domain
CC and connects beta-strands involved in the formation of the cell binding
CC site. Recombinant adenovirus vectors are used in a number of gene
CC therapy applications; however, the reliance on the CAR means that
CC in certain situations, recombinant virions are sequestered by high
CC CAR-expressing non-target cells while the true target cells, if low
CC in CAR, receive little of the therapeutic gene. Modification of the HI
CC loop by replacement of the hypervariable region of the loop with a
CC peptide such as the RGD peptide results in the
CC ability of the virus to utilise an alternative receptor during the cell
CC entry process. Modifying the adenovirus fibre knob protein in this way
CC increases the ability of an adenovirus to transduce a tumour cell in
CC vitro, in vivo and ex vivo. The vector Ad5FHIFLAG incorporating an RGD
CC peptide demonstrated two to three orders of magnitude
CC of increased gene transfer to ovarian cancer cells. The modified
CC adenovirus has an altered tropism, which allows the adenovirus to be
CC targeted to selected cell types. The recombinant adenovirus can be used
CC to provide gene therapy for individuals suffering from cancer, cystic
CC fibrosis and Duchenne's muscular dystrophy.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 7
AAW93626
ID AAW93626 standard; Protein; 9 AA.
XX
AC AAW93626;
XX
DT 28-JUN-1999 (first entry)
XX
DE NGR receptor binding tumour homing peptide 5.
XX
KW Tumour homing peptide; tumour; diagnosis; endothelial cell;
KW angiogenic vasculature; anti-tumour; anti-inflammatory; anti-angiogenic;
KW anti-arthritic; NGR receptor; inhibitor; angiogenesis; anticancer drug;
KW prognosis; inflammation; regeneration; wounded tissue; targetting;
KW macular degeneration; diabetic retinopathy; rheumatoid arthritis;
KW occlusive thrombus.
XX
OS Synthetic.
XX
PN WO9913329-A1.
XX
PD 18-MAR-1999.
XX
PF 08-SEP-1998; 98WO-US18895.
XX
PR 25-AUG-1998; 98US-0139802.
PR 10-SEP-1997; 97US-0926914.
XX
PA (BURN-) BURNHAM INST.
XX
PI Pasqualini R, Ruoslahti E;
XX
DR WPI; 1999-215158/18.
XX
PT Identifying molecules that home to angiogenic vasculature used as
PT targets for anticancer agents
XX
PS Claim 15; Page 7; 180pp; English.
XX
CC This invention describes novel peptides which home to angiogenic
CC vasculature, specifically of a tumour and which have anti-tumour,
CC anti-inflammatory, anti-angiogenic and anti-arthritic activity. Such
CC molecules are identified by treating a purified NGR receptor with a test
CC compound and identifying compounds that bind specifically to the NGR
CC receptor. The peptides of the invention are inhibitors of angiogenesis
CC and can be used to produce conjugates for delivering agents to
CC angiogenic vasculature, particularly anticancer drugs or an imaging
CC agent, for diagnosis or prognosis. These conjugates may be directed to
CC non-tumour angiogenic vasculature, e.g. that present in inflammatory,
CC regenerating or wounded tissue, e.g. for treatment of macular
CC degeneration, diabetic retinopathy or rheumatoid arthritis. The peptides
CC provide specific targeting to tumours, especially their supporting
CC vasculature, since the NGR receptor is exposed to the circulation only in
CC angiogenic vasculature. Precise targeting should reduce the systemic
CC toxicity of anticancer drugs in the conjugates. Complete killing of all
CC target cells may not be essential since partial denudation of endothelium
CC may result in an occlusive thrombus, and endothelial cells are unlikely
CC to become resistant to anticancer agents nor to lose the targeting
CC receptor. AAW93622-W93809 and AAW93843-44 are examples of tumour homing
CC peptides used in the invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 20; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
||||||||| |
Db 1 CDCRGDCFC 9

RESULT 8
AAB21701
ID AAB21701 standard; Peptide; 9 AA.
XX
AC AAB21701;
XX
DT 22-MAR-2001 (first entry)
XX
DE Human breast tumour homing peptide #1.
XX
KW Cytostatic; homing pro-apoptotic conjugate; tumour; antimicrobial;
KW breast; prostate; melanoma; cancer; Kaposi's sarcoma; human.
XX
OS Homo sapiens.

XX
PN WO200042973-A2.
XX
PD 27-JUL-2000.
XX
PF 21-JAN-2000; 2000WO-US01602.
XX
PR 22-JAN-1999; 99US-0235902.
XX
PA (BURN-) BURNHAM INST.
XX
PI Ellerby HM, Bredesen DE, Pasqualini R, Ruoslahti EI;
XX
DR WPI; 2000-499174/44.
XX
PT Homing pro-apoptotic conjugate comprising a tumor homing molecule that
PT selectively homes to a mammalian cell type or tissue linked to an
PT antimicrobial peptide, useful for the treatment of prostate cancer -
XX
PS Claim 12; Page 105; 118pp; English.
XX
CC The present invention relates to homing pro-apoptotic conjugates,
CC comprising of a tumour homing molecule that selectively homes to a
CC mammalian cell type or tissue, linked to an antimicrobial peptide. The
CC homing pro-apoptotic conjugates are selectively internalised by the
CC mammalian cell type or tissue and exhibits high toxicity, especially to
CC angiogenic vasculature. The antimicrobial peptide has low mammalian cell
CC toxicity when not linked to the tumor homing molecule. The conjugates are
CC useful for the treatment of cancer e.g. Kaposi's sarcoma, breast and
CC prostate cancer or melanoma. The present sequence is a homing peptide
CC isolated in the present invention, which can be conjugated to an
CC antimicrobial peptide to make the homing pro-apoptotic conjugates of the
CC present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 9
AAB17346
ID AAB17346 standard; Peptide; 9 AA.
XX
AC AAB17346;
XX
DT 31-OCT-2000 (first entry)
XX
DE Integrin-binding peptide sequence SEQ ID NO:450.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Claim 39; Page 354; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 10
AAB17928
ID AAB17928 standard; Peptide; 9 AA.
XX
AC AAB17928;
XX
DT 31-OCT-2000 (first entry)
XX
DE TPO-mimetic peptide sequence SEQ ID NO:1032.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.

XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Disclosure; Page 559; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 11
AAB17964
ID AAB17964 standard; Peptide; 9 AA.
XX
AC AAB17964;
XX
DT 31-OCT-2000 (first entry)
XX
DE Integrin-binding peptide sequence SEQ ID NO:1076.
XX
KW Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist;
KW MMP; inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW vascular endothelial growth factor; matrix metalloproteinase;
KW asthma; thrombosis; pharmaceutical.
XX
OS Synthetic.
XX
PN WO200024782-A2.
XX
PD 04-MAY-2000.
XX
PF 25-OCT-1999; 99WO-US25044.
XX
PR 23-OCT-1998; 98US-0105371.
PR 22-OCT-1999; 99US-0428082.
XX
PA (AMGE-) AMGEN INC.
XX
PI Feige U, Liu C, Cheetham J, Boone TC;
XX
DR WPI; 2000-350702/30.
XX
PT Novel composition of matter comprising an Fc domain and
PT pharmacologically active peptides, useful for treating cancer and
PT autoimmune diseases -
XX
PS Claim 39; Page 591; 608pp; English.
XX
CC The present invention describes composition of matter (I) comprising an
CC Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
CC independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2,
CC -(L1)c-P1-(L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4
CC where P1, P2, P3, and P4 = are each independently sequences of
CC pharmacologically active peptides; L1, L2, L3, and L4 = are each
CC independently linkers; and a, b, c, d, e, and f = are each independently
CC 0 or 1, provided that at least 1 of a and b is 1. The composition can
CC have cytostatic, antiasthmatic, thrombolytic and immunosuppressive
CC activities. DNAs, vectors and host cells from the present invention can
CC be used for producing pharmaceutical compositions. The compositions are
CC useful for treating cancer, asthma, thrombosis, or autoimmune diseases.
CC The use of an Fc domain (rather than a Fab domain) can provide a longer
CC half-life or incorporate functions such as Fc receptor binding, protein
CC A binding, complement fixation, and possibly placental transfer. AAA69443
CC to AAA69526 and AAB16955 to AAB18003 represent nucleotide and amino acid
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 12
AAY90211
ID AAY90211 standard; peptide; 9 AA.
XX
AC AAY90211;
XX
DT 21-SEP-2000 (first entry)
XX
DE Alphav integrin targeting peptide #1.
XX
KW Ligand epitope; UPAR; urokinase-type plasminogen activator receptor;
KW adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease;
KW recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma;
KW smooth muscle cell proliferation inhibitor; coronary artery disease;
KW obesity; neurodegenerative disease; infection; autoimmune disease; HIV;
KW thrombosis; diabetes; tropism-modified virus.
XX
OS Adenovirus sp.
XX
PN WO200012738-A1.
XX
PD 09-MAR-2000.
XX
PF 27-AUG-1999; 99WO-IB01524.
XX
PR 27-AUG-1998; 98US-0098028.
XX
PA (AVET) AVENTIS PHARMA SA.
XX
PI Vigne E, Dedieu J, Latta M, Yeh P, Perricaudet M;
XX
DR WPI; 2000-256653/22.
XX
PT Urokinase-type plasminogen activator receptor (UPAR)-targeted

PT adenovirus vectors having modified hexon HVR5 and HI loops and modified
PT fiber proteins useful for targeted gene therapy to treat cancer or
PT restenosis -
XX
PS Example 5; Page 53; 128pp; English.
XX
CC This sequence represents a alphav integrin targeting peptide.
CC The invention relates to an adenovirus from which at
CC least a part of the hexon HVR5 or HI loop is replaced with a binding
CC peptide, or targeting sequence, flanked by connecting amino acid spacers,
CC to functionally display its binding specificity at the capsid surface.
CC The invention also relates to a recombinant adenovirus vector where a
CC binding peptide, or targeting sequence, is connected to the C-terminus of
CC the fiber by a connecting spacer, or linker, so as to functionally
CC display its binding specificity at the capsid surface. The adenovirus or
CC recombinant adenovirus vector can be used to preferentially express a
CC gene in a target cell, especially a cell that expresses a UPAR. The
CC targeted adenovirus vector preferably comprises a heterologous gene
CC encoding a gene for treatment of a tumour or restenosis. The targeted
CC adenovirus vector is useful for gene therapy treatment of a disease, and
C[redacted] for manufacturing a medicine used in gene therapy treatment of a disease.
C[redacted] The viruses can also be used to inhibit smooth muscle cell proliferation,
CC to treat peripheral artery diseases, coronary artery diseases, obesity,
CC neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
CC thrombosis, and diabetes. The viruses are particularly targeted against a
CC urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC are tropism-modified without adversely impacting productivity of the
CC vectors.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 13
AAY44970
ID AAY44970 standard; Protein; 9 AA.
XX
AC AAY44970;
XX
DT 23-MAY-2000 (first entry)
XX
D[redacted] RGD-4C targeting sequence for KDEL receptor inhibitor protein.
X
K[redacted] KDEL receptor inhibitor; heat shock protein; immune response;
KW oligomerisation domain; neoplasia; sarcoma; lymphoma; leukaemia;
KW melanoma; carcinoma; glioblastoma; astromytoma; oncogene;
KW infectious disease; allergy; autoimmune disease.
XX
OS Unidentified.
XX
PN WO200006729-A1.
XX
PD 10-FEB-2000.
XX
PF 28-JUL-1999; 99WO-US17147.
XX
PR 29-JUL-1998; 98US-0124671.
XX
PA (SLOK) SLOAN KETTERING INST CANCER RES.
XX
PI Rothman JE, Mayhew M, Hoe MH;
XX
DR WPI; 2000-195296/17.
XX
PT Inhibitors of the KDEL receptor which comprises an oligomerization
PT domain useful for promoting secretion of proteins which are normally
PT retained within the cell -
XX
PS Disclosure; Page 17; 87pp; English.
XX
CC The patent discloses the use of KDEL receptor inhibitor to promote
CC secretion of proteins that are normally retained within the cell such as
CC heat shock proteins by inhibiting KDEL receptor-mediated return of
CC protein complexes to endoplasmic reticulum. This makes the secreted heat
CC shock proteins more accessible to the immune system and improves immune
CC response to a target antigen. The inhibitor protein comprises several
CC subunits where each subunit comprises an oligomerisation domain and has
CC at its carboxy terminus a region which binds to a KDEL receptor. The
CC target antigen may be associated with diseases including neoplasia such
CC as sarcoma, lymphoma, leukemia, melanoma, carcinoma, glioblastoma and
CC astromytoma, with defective tumour suppressor genes, oncogenes,
CC infectious diseases, allergy or autoimmune diseases. The present
CC sequence is a targeting peptide termed RGD-4C. This may be incorporated
CC into the amino terminal region of a KDEL receptor inhibitor protein
CC downstream from a cleavably removed sequence to improve its activity or
CC alter its immunogenicity.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 14
AAY54271
ID AAY54271 standard; Peptide; 9 AA.
XX
AC AAY54271;
XX
DT 06-APR-2000 (first entry)
XX
DE Alpha Vbeta-3 binding peptide sequence.
XX
KW Envelope protein; mutant; retrovirus; surface protein shedding;
KW envelope protein stability; gene therapy; drug therapy; cancer;
KW adenosine deaminase deficiency; thalassemia; hemophilia; diabetes;
KW alpha-anti trypsin deficiency; brain disorder; neural disorder;
KW phenylketonuria; growth disorder; heart disease; immune disease.
XX
OS Unidentified.
XX
PN WO9960110-A2.
XX
PD 25-NOV-1999.
XX
PF 20-MAY-1999; 99WO-US11155.
XX
PR 20-MAY-1998; 98US-0086149.
XX
PA (UYTE-) UNIV TENNESSEE RES CORP.
XX
PI Albritton LM, Zavorotinskaya T;
XX
DR WPI; 2000-116313/10.
XX
PT Novel isolated nucleic acid, useful for gene therapy -
XX
PS Example 10; Page 84; 190pp; English.
XX
CC The specification describes mutant retrovirus envelope proteins. The
CC envelope protein coding sequence can be mutated to encode a mutant
CC envelope protein with a substitution of one or more amino acids in at
CC least one motif of the retrovirus protein. The mutant protein fragment
CC allows for decreased shedding of the surface protein by suppressing

CC precursor cleavage and increase envelope stability and fusion of
CC retroviruses with cell membranes, while maintaining mutant envelope
CC protein incorporation into a virion, and viral titers of about two orders
CC of magnitude within that observed for wild-type retrovirus when the
CC protein or fragment is expressed on the surface of a retroviral particle.
CC The proteins have an increased ability to penetrate targets, typically
CC cells and a correspondingly increased ability to deliver nucleic acids or
CC drugs. The mutated nucleic acid is useful for gene and drug therapy,
CC especially as drug delivery vehicles. The retrovirus particles can be
CC utilized to transduce eukaryotic cells. The transduced cells are useful
CC in the treatment of cancer in a human. Other diseases contemplated for
CC treatment include adenosine deaminase deficiency (ADA), thalassemia,
CC hemophilia, diabetes, alpha-anti trypsin deficiency, brain and neural
CC disorders, phenylketonuria, growth disorders, heart diseases and immune
CC diseases. The present sequence was used in the course of the invention,
CC to quantitate targeted retroviral vector gene delivery in vivo.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 21; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 15
AAE11044
ID AAE11044 standard; peptide; 9 AA.
XX
AC AAE11044;
XX
DT 18-DEC-2001 (first entry)
XX
DE RGD-containing peptide.
XX
KW Tumour necrosis factor; TNF; cytokine; cytostatic; virucide;
KW TNF related apoptosis inducing ligand; TRAIL; cancer; viral infection;
KW human immunodeficiency virus; HIV; leukaemia; gene therapy; lymphoma;
KW melanoma.
XX
OS Unidentified.
XX
PN US6284236-B1.
XX
PD 04-SEP-2001.

PF 26-MAY-1999; 99US-0320424.
XX
PR 29-JUN-1995; 95US-0496632.
PR 01-NOV-1995; 95US-0548368.
PR 25-JUN-1996; 96US-0670354.
PR 26-MAR-1998; 98US-0048641.
PR 10-NOV-1998; 98US-0190046.
XX
PA (IMMV) IMMUNEX CORP.
XX
PI Wiley SR, Goodwin RG;
XX
DR WPI; 2001-595463/67.
XX
PT New tumor necrosis factor related apoptosis inducing ligand
PT polypeptides for treating viral infections (e.g. bovine viral diarrhea
PT or human immunodeficiency virus), or cancers (e.g. leukemia or
PT lymphoma) -
XX
PS Disclosure; Column 11; 41pp; English.
XX
CC The invention relates to a cytokine designated as tumour necrosis
CC factor (TNF) related apoptosis inducing ligand (TRAIL), which induces
CC apoptosis of certain target cells, including cancer cells and virally
CC infected cells. The TRAIL polypeptides are useful in killing cancer
CC cells, in treating viral infections (e.g. bovine viral diarrhoea or
CC human immunodeficiency virus (HIV)) and cancers (e.g. leukaemia,
CC lymphoma and melanoma), as a research reagent useful in studying
CC apoptosis including the regulation of programmed cell death. TRAIL
CC DNA sequences may be employed in developing a gene therapy approach
CC to treating disorders mediated by defective or insufficient amounts
CC of TRAIL, in the production of TRAIL polypeptides and as probes or
CC primers in polymerase chain reactions (PCR). The present sequence is
CC a RGD-containing peptide that binds an integrin associated with
CC tumour. This sequence is used to construct a fusion protein
CC comprising TRAIL protein.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 65; DB 22; Length 9;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
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Db 1 CDCRGDCFC 9

Search completed: December 3, 2002, 08:21:03
Job time : 34 secs

GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 08:22:03 ; Search time 10 Seconds
(without alignments)
14.332 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 102317 seqs, 15924203 residues

Total number of hits satisfying chosen parameters: 17254

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	9	US-09-840-277-38	Sequence 38, Appl
2	65	100.0	9	9	US-09-840-277-62	Sequence 62, Appl
3	65	100.0	9	9	US-10-080-854-8	Sequence 8, Appli
4	65	100.0	9	10	US-09-765-086-1	Sequence 1, Appli
5	65	100.0	9	10	US-09-845-160-5	Sequence 5, Appli
6	65	100.0	9	10	US-09-245-603A-16	Sequence 16, Appl
7	65	100.0	9	10	US-09-364-597A-16	Sequence 16, Appl
8	65	100.0	9	10	US-09-734-628-1	Sequence 1, Appli
9	65	100.0	9	10	US-09-971-798-5	Sequence 5, Appli
10	65	100.0	9	10	US-09-969-192-3	Sequence 3, Appli
11	59	90.8	9	9	US-09-840-277-63	Sequence 63, Appl
12	59	90.8	9	10	US-09-364-597A-17	Sequence 17, Appl
13	51	78.5	9	9	US-09-840-277-14	Sequence 14, Appl
14	51	78.5	9	10	US-09-364-597A-15	Sequence 15, Appl
15	51	78.5	9	10	US-09-969-192-4	Sequence 4, Appli
16	49	75.4	9	9	US-09-840-277-22	Sequence 22, Appl
17	49	75.4	9	10	US-09-364-597A-18	Sequence 18, Appl
18	45.5	70.0	8	10	US-09-946-893-9	Sequence 9, Appli
19	38	58.5	7	10	US-09-364-597A-14	Sequence 14, Appl
20	35	53.8	5	10	US-09-364-597A-37	Sequence 37, Appl
21	35	53.8	6	10	US-09-364-597A-7	Sequence 7, Appli
22	35	53.8	9	10	US-09-364-597A-33	Sequence 33, Appl
23	34	52.3	9	10	US-09-364-597A-24	Sequence 24, Appl
24	33	50.8	7	10	US-09-823-444-5	Sequence 5, Appli
25	33	50.8	7	10	US-09-364-597A-13	Sequence 13, Appl
26	33	50.8	9	10	US-09-364-597A-34	Sequence 34, Appl
27	32	49.2	7	9	US-09-840-277-12	Sequence 12, Appl
28	32	49.2	7	9	US-09-840-277-50	Sequence 50, Appl
29	31	47.7	7	9	US-09-840-277-59	Sequence 59, Appl
30	31	47.7	7	10	US-09-364-597A-30	Sequence 30, Appl
31	30	46.2	7	10	US-09-929-313-3	Sequence 3, Appli
32	26	40.0	4	10	US-09-765-614B-1	Sequence 1, Appli
33	26	40.0	4	10	US-09-925-715-4	Sequence 4, Appli
34	26	40.0	7	9	US-09-949-474-9	Sequence 9, Appli
35	26	40.0	8	9	US-09-949-474-11	Sequence 11, Appl
36	26	40.0	8	10	US-09-364-597A-27	Sequence 27, Appl
37	26	40.0	9	10	US-09-952-768-44	Sequence 44, Appl
38	26	40.0	9	10	US-09-952-768-59	Sequence 59, Appl
39	26	40.0	9	10	US-09-954-697-94	Sequence 94, Appl
40	26	40.0	9	10	US-09-954-697-112	Sequence 112, App
41	25	38.5	6	10	US-09-823-444-1	Sequence 1, Appli
42	25	38.5	6	10	US-09-823-444-4	Sequence 4, Appli
43	24.5	37.7	9	10	US-09-919-048-72	Sequence 72, Appl
44	24	36.9	5	10	US-09-866-898-3	Sequence 3, Appli
45	24	36.9	6	9	US-10-100-952-199	Sequence 199, App

ALIGNMENTS

```
RESULT 1
US-09-840-277-38
; Sequence 38, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
;  APPLICANT: FEIGE, ULRICH
;  APPLICANT:  KOHNO, TADAHIKO
;  APPLICANT:  LACEY, DAVID LEE
;  APPLICANT:  BOONE, THOMAS CHARLES
;  TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
;  FILE REFERENCE: A-688A
;  CURRENT APPLICATION NUMBER: US/09/840,277
;  CURRENT FILING DATE:  2001-08-14
;  PRIOR APPLICATION NUMBER: 60/198,919
;  PRIOR FILING DATE: 2000-04-21
;  PRIOR APPLICATION NUMBER: 60/201,394
;  PRIOR FILING DATE: 2000-05-03
;  NUMBER OF SEQ ID NOS: 135
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 38
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Integrin antagonist peptide
US-09-840-277-38

  Query Match             100.0%;  Score 65;  DB 9;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
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Db       1 CDCRGDCFC 9


RESULT 2
US-09-840-277-62
; Sequence 62, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
;  APPLICANT: FEIGE, ULRICH
```

; APPLICANT: KOHNO, TADAHIKO
; APPLICANT: LACEY, DAVID LEE
; APPLICANT: BOONE, THOMAS CHARLES
; TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
; FILE REFERENCE: A-688A
; CURRENT APPLICATION NUMBER: US/09/840,277
; CURRENT FILING DATE: 2001-08-14
; PRIOR APPLICATION NUMBER: 60/198,919
; PRIOR FILING DATE: 2000-04-21
; PRIOR APPLICATION NUMBER: 60/201,394
; PRIOR FILING DATE: 2000-05-03
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 62
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Integrin antagonist peptide
09-840-277-62

Query Match 100.0%; Score 65; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 3
US-10-080-854-8
; Sequence 8, Application US/10080854
; Patent No. US20020172940A1
; GENERAL INFORMATION:
; APPLICANT: GYURIS, JENO
; APPLICANT: MORRIS, AARON J.
; TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE
; TITLE OF INVENTION: PEPTIDES
; FILE REFERENCE: MIV-106.01
; CURRENT APPLICATION NUMBER: US/10/080,854
; CURRENT FILING DATE: 2002-02-22
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: RGD motif
US-10-080-854-8

Query Match 100.0%; Score 65; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 4
US-09-765-086-1
; Sequence 1, Application US/09765086
; Patent No. US20010046498A1
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Pasqualini, Renata
; APPLICANT: Wadih, Arap
; APPLICANT: Bredesen, Dale E.
; APPLICANT: Ellerby, H. Michael
; TITLE OF INVENTION: Chimeric Prostate-Homing Peptides With
; TITLE OF INVENTION: Pro-Apoptotic Activity
; FILE REFERENCE: P-LJ 3844
; CURRENT APPLICATION NUMBER: US/09/765,086
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: US 09/489,582
; PRIOR FILING DATE: 2000-01-21
; NUMBER OF SEQ ID NOS: 235
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic peptide
US-09-765-086-1

Query Match 100.0%; Score 65; DB 10; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 5
US-09-845-160-5
; Sequence 5, Application US/09845160
; Patent No. US20020058045A1
; GENERAL INFORMATION:
; APPLICANT: MIZUGUCHI, HIROYUKI
; APPLICANT: HAYAKAWA, TAKAO
; TITLE OF INVENTION: ADENOVIRUS VECTOR
; FILE REFERENCE: 081356/0163
; CURRENT APPLICATION NUMBER: US/09/845,160
; CURRENT FILING DATE: 2001-05-01
; PRIOR APPLICATION NUMBER: JP 2001-131688
; PRIOR FILING DATE: 2001-04-27
; PRIOR APPLICATION NUMBER: JP 2000-161577
; PRIOR FILING DATE: 2000-05-31
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: RGD-4C peptide.
US-09-845-160-5

Query Match 100.0%; Score 65; DB 10; Length 9;
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 6
US-09-245-603A-16
; Sequence 16, Application US/09245603A
; Patent No. US20020081280A1
; GENERAL INFORMATION:
; APPLICANT: Curiel, David T.
; APPLICANT: Krasnykh, Victor N.
; APPLICANT: Dmitriev, Igor
; TITLE OF INVENTION: Adenovirus Vector Containing A Heterologous Peptide
; TITLE OF INVENTION: Epitope in the HI Loop of the Fiber Knob
; FILE REFERENCE: D6080
; CURRENT APPLICATION NUMBER: US/09/245,603A
; CURRENT FILING DATE: 1999-02-05
; PRIOR APPLICATION NUMBER: US 60/099,801
; PRIOR FILING DATE: 1998-09-10

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;  NUMBER OF SEQ ID NOS:  17
; SEQ ID NO 16
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: artificial sequence
;   FEATURE:
;   OTHER INFORMATION: Amino acid sequence of a RGD peptide incorporated
;   OTHER INFORMATION: into the region of the fiber gene within the HI loop.
US-09-245-603A-16

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 7
U[redacted]-364-597A-16
;[redacted]uence 16, Application US/09364597A
;[redacted]tent No. US20020103130A1
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. US20020103130A1el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell & Flores LLP
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/364,597A
;      FILING DATE:  30-JUL-1999
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/286,861
;[redacted]    FILING DATE:  04-AUG-1994
;[redacted]ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 3419
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (858) 535-9001
;      TELEFAX:  (858) 535-8949
;  INFORMATION FOR SEQ ID NO:  16:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-09-364-597A-16

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 8
US-09-734-628-1
; Sequence 1, Application US/09734628
; Patent No. US20020122806A1
; GENERAL INFORMATION:
;  APPLICANT: Chinnaiyan, Arul M.
;  APPLICANT:  Rehemtulla, Alnawaz
;  APPLICANT:  Ross, Brian D.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IN SITU AND
;  TITLE OF INVENTION:  IN VIVO IMAGING OF CELLS AND TISSUES
;  FILE REFERENCE: 11203-005001
;  CURRENT APPLICATION NUMBER: US/09/734,628
;  CURRENT FILING DATE:  2000-12-11
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetically generated peptide
US-09-734-628-1

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 9
US-09-971-798-5
; Sequence 5, Application US/09971798
; Patent No. US20020132769A1
; GENERAL INFORMATION:
;  APPLICANT: No. US20020132769A1artis AG
;  TITLE OF INVENTION: Targeting molecules
;  FILE REFERENCE: 4-31615/GTI
;  CURRENT APPLICATION NUMBER: US/09/971,798
;  CURRENT FILING DATE:  2001-10-05
;  NUMBER OF SEQ ID NOS: 31
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-971-798-5

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 10
US-09-969-192-3
; Sequence 3, Application US/09969192
; Patent No. US20020151027A1
;   GENERAL INFORMATION:
;        APPLICANT: WICKHAM, THOMAS J.
;                   ROELVINK, PETRUS W.
;                   KOVESDI, IMRE
;        TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
;                            CONSTRAINED PEPTIDE MOTIFS
;        NUMBER OF SEQUENCES: 80
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Leydig, Voit & Mayer, Ltd.
;             STREET: Two Prudential Plaza - 49th Floor
```

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;              CITY: Chicago
;              STATE: Illinois
;              COUNTRY: USA
;              ZIP: 60601
;         COMPUTER READABLE FORM:
;              MEDIUM TYPE: Floppy disk
;              COMPUTER: IBM PC compatible
;              OPERATING SYSTEM: PC-DOS/MS-DOS
;              SOFTWARE: PatentIn Release #1.0, Version #1.30
;         CURRENT APPLICATION DATA:
;              APPLICATION NUMBER: US/09/969,192
;              FILING DATE: 01-Oct-2001
;         PRIOR APPLICATION DATA:
;              APPLICATION NUMBER: US 9-455061
;              FILING DATE: 06-DEC-1999
;              APPLICATION NUMBER: US 9-130225
;              FILING DATE: 06-AUG-1998
;              APPLICATION NUMBER: US 8-701124
;              FILING DATE: 21-AUG-1996
;         ATTORNEY/AGENT INFORMATION:
;              NAME: Hefner, M. Daniel
;              REGISTRATION NUMBER: 41,826
;              REFERENCE/DOCKET NUMBER: 213564
;    INFORMATION FOR SEQ ID NO: 3:
;         SEQUENCE CHARACTERISTICS:
;              LENGTH: 9 amino acids
;              TYPE: amino acid
;              STRANDEDNESS: single
;              TOPOLOGY: linear
;         MOLECULE TYPE: peptide
;         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-969-192-3

  Query Match             100.0%;  Score 65;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 8.5e+04;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 11
US-09-840-277-63
; Sequence 63, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
;  APPLICANT: FEIGE, ULRICH
;  APPLICANT:  KOHNO, TADAHIKO
;  APPLICANT:  LACEY, DAVID LEE
;  APPLICANT:  BOONE, THOMAS CHARLES
;  TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
;  FILE REFERENCE: A-688A
;  CURRENT APPLICATION NUMBER: US/09/840,277
;  CURRENT FILING DATE:  2001-08-14
;  PRIOR APPLICATION NUMBER: 60/198,919
;  PRIOR FILING DATE: 2000-04-21
;  PRIOR APPLICATION NUMBER: 60/201,394
;  PRIOR FILING DATE: 2000-05-03
;  NUMBER OF SEQ ID NOS: 135
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 63
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Integrin antagonist peptide
US-09-840-277-63

  Query Match             90.8%;  Score 59;  DB 9;  Length 9;
  Best Local Similarity   88.9%;  Pred. No. 8.5e+04;
  Matches    8;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||| |
Db      1 CDCRGDCLC 9


RESULT 12
US-09-364-597A-17
; Sequence 17, Application US/09364597A
; Patent No. US20020103130A1
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. US20020103130A1el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell & Flores LLP
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/364,597A
;      FILING DATE:  30-JUL-1999
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/286,861
;      FILING DATE:  04-AUG-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 3419
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (858) 535-9001
;      TELEFAX:  (858) 535-8949
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-09-364-597A-17

  Query Match             90.8%;  Score 59;  DB 10;  Length 9;
  Best Local Similarity   88.9%;  Pred. No. 8.5e+04;
  Matches    8;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||| |
Db      1 CDCRGDCLC 9


RESULT 13
US-09-840-277-14
; Sequence 14, Application US/09840277
; Patent No. US20020168363A1
; GENERAL INFORMATION:
;  APPLICANT: FEIGE, ULRICH
;  APPLICANT:  KOHNO, TADAHIKO
;  APPLICANT:  LACEY, DAVID LEE
;  APPLICANT:  BOONE, THOMAS CHARLES
;  TITLE OF INVENTION: INTEGRIN/ADHESION ANTAGONISTS
;  FILE REFERENCE: A-688A
;  CURRENT APPLICATION NUMBER: US/09/840,277
;  CURRENT FILING DATE:  2001-08-14
;  PRIOR APPLICATION NUMBER: 60/198,919
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; PRIOR FILING DATE: 2000-04-21
; PRIOR APPLICATION NUMBER: 60/201,394
; PRIOR FILING DATE: 2000-05-03
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 14
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: RGD, NGR derivative peptide
; NAME/KEY: misc_feature
; LOCATION: (2)..(8)
; OTHER INFORMATION: Xaa is any amino acid
US-09-840-277-14

Query Match 78.5%; Score 51; DB 9; Length 9;
Best Local Similarity 77.8%; Pred. No. 8.5e+04;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Q 1 CDCRGDCFC 9
| ||||| |
L 1 CXCRGDCXC 9

RESULT 14
US-09-364-597A-15
; Sequence 15, Application US/09364597A
; Patent No. US20020103130A1
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Koivunen, Erkki
; TITLE OF INVENTION: No. US20020103130A1el Integrin-Binding Peptides
; NUMBER OF SEQUENCES: 46
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Campbell & Flores LLP
; STREET: 4370 La Jolla Village Drive, Suite 700
; CITY: San Diego
; STATE: California
; COUNTRY: USA
; ZIP: 92122
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/364,597A
; FILING DATE: 30-JUL-1999
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/158,001
; FILING DATE: 24-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/286,861
; FILING DATE: 04-AUG-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Campbell, Cathryn
; REGISTRATION NUMBER: 31,815
; REFERENCE/DOCKET NUMBER: P-LA 3419
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (858) 535-9001
; TELEFAX: (858) 535-8949
; INFORMATION FOR SEQ ID NO: 15:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; TOPOLOGY: circular
US-09-364-597A-15

Query Match 78.5%; Score 51; DB 10; Length 9;
Best Local Similarity 77.8%; Pred. No. 8.5e+04;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
| ||||| |
Db 1 CXCRGDCXC 9

RESULT 15
US-09-969-192-4
; Sequence 4, Application US/09969192
; Patent No. US20020151027A1
; GENERAL INFORMATION:
; APPLICANT: WICKHAM, THOMAS J.
; ROELVINK, PETRUS W.
; KOVESDI, IMRE
; TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
; CONSTRAINED PEPTIDE MOTIFS
; NUMBER OF SEQUENCES: 80
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Leydig, Voit & Mayer, Ltd.
; STREET: Two Prudential Plaza - 49th Floor
; CITY: Chicago
; STATE: Illinois
; COUNTRY: USA
; ZIP: 60601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/969,192
; FILING DATE: 01-Oct-2001
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 9-455061
; FILING DATE: 06-DEC-1999
; APPLICATION NUMBER: US 9-130225
; FILING DATE: 06-AUG-1998
; APPLICATION NUMBER: US 8-701124
; FILING DATE: 21-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Hefner, M. Daniel
; REGISTRATION NUMBER: 41,826
; REFERENCE/DOCKET NUMBER: 213564
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-969-192-4

Query Match 78.5%; Score 51; DB 10; Length 9;
Best Local Similarity 77.8%; Pred. No. 8.5e+04;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
| ||||| |
Db 1 CXCRGDCXC 9

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Job time : 11 secs

GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 08:21:28 ; Search time 13 Seconds
(without alignments)
42.232 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 192817 seqs, 61001658 residues

Total number of hits satisfying chosen parameters: 8966

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep:*
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4: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep:*
5: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep:*
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7: /cgn2_6/ptodata/1/paa/US60_NEW_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	1	PCT-US02-34987-70	Sequence 70, Appl
2	65	100.0	9	6	US-10-032-221B-35	Sequence 35, Appl
3	45.5	70.0	8	5	US-09-946-893B-9	Sequence 9, Appli
4	33	50.8	7	6	US-10-131-346-29	Sequence 29, Appl
5	33	50.8	7	6	US-10-131-546-29	Sequence 29, Appl
6	31	47.7	8	5	US-09-813-484-19	Sequence 19, Appl
7	30	46.2	9	6	US-10-062-109A-31	Sequence 31, Appl
8	30	46.2	9	6	US-10-062-109A-115	Sequence 115, App
9	30	46.2	9	6	US-10-062-109A-698	Sequence 698, App
10	26	40.0	5	5	US-09-813-484-24	Sequence 24, Appl
11	26	40.0	8	5	US-09-813-484-20	Sequence 20, Appl
12	26	40.0	8	5	US-09-813-484-21	Sequence 21, Appl
13	26	40.0	8	5	US-09-813-484-23	Sequence 23, Appl
14	25	38.5	7	1	PCT-US02-33340-1	Sequence 1, Appli
15	24	36.9	6	5	US-09-776-268A-5	Sequence 5, Appli
16	24	36.9	9	6	US-10-062-109A-283	Sequence 283, App
17	23	35.4	8	5	US-09-813-484-22	Sequence 22, Appl
18	22	33.8	5	6	US-10-032-221B-36	Sequence 36, Appl
19	22	33.8	7	5	US-09-898-234B-33	Sequence 33, Appl
20	22	33.8	7	5	US-09-899-422A-33	Sequence 33, Appl
21	22	33.8	9	6	US-10-062-109A-3	Sequence 3, Appli
22	22	33.8	9	6	US-10-062-109A-35	Sequence 35, Appl
23	22	33.8	9	6	US-10-062-109A-268	Sequence 268, App
24	21	32.3	8	5	US-09-458-298A-147	Sequence 147, App
25	21	32.3	8	5	US-09-458-298A-344	Sequence 344, App
26	21	32.3	8	5	US-09-458-298A-1372	Sequence 1372, Ap
27	21	32.3	8	5	US-09-458-298A-1392	Sequence 1392, Ap
28	21	32.3	8	5	US-09-458-298A-1540	Sequence 1540, Ap
29	21	32.3	8	5	US-09-458-298A-1564	Sequence 1564, Ap
30	21	32.3	8	5	US-09-458-298A-1698	Sequence 1698, Ap
31	21	32.3	8	5	US-09-458-298A-1795	Sequence 1795, Ap
32	21	32.3	9	5	US-09-458-298A-148	Sequence 148, App
33	21	32.3	9	5	US-09-458-298A-345	Sequence 345, App
34	21	32.3	9	5	US-09-458-298A-1344	Sequence 1344, Ap
35	21	32.3	9	5	US-09-458-298A-1395	Sequence 1395, Ap
36	21	32.3	9	5	US-09-458-298A-1516	Sequence 1516, Ap
37	21	32.3	9	5	US-09-458-298A-1567	Sequence 1567, Ap
38	21	32.3	9	5	US-09-458-298A-1681	Sequence 1681, Ap
39	21	32.3	9	5	US-09-458-298A-1778	Sequence 1778, Ap
40	21	32.3	9	5	US-09-458-298A-2062	Sequence 2062, Ap
41	21	32.3	9	5	US-09-458-298A-2154	Sequence 2154, Ap
42	21	32.3	9	5	US-09-458-298A-2155	Sequence 2155, Ap
43	21	32.3	9	5	US-09-458-298A-2164	Sequence 2164, Ap
44	21	32.3	9	6	US-10-062-109A-555	Sequence 555, App
45	20	30.8	7	5	US-09-989-994-418	Sequence 418, App

ALIGNMENTS

RESULT 1
PCT-US02-34987-70
; Sequence 70, Application PC/TUS0234987
; GENERAL INFORMATION:
; APPLICANT: Board of Regents, The University of Texas System (applicant for the
; APPLICANT: purposes of all designated states except US)
; APPLICANT: Arap, Wadih (applicant for the purpose of the United States of America
; APPLICANT: only)
; APPLICANT: Kolonin, Mikhail G.(applicant for the purpose of the United States of
; APPLICANT: America only)
; APPLICANT: Mintz, Paul J.(applicant for the purpose of the United States of Ameri
; APPLICANT: only)
; APPLICANT: Pasqualini, Renata (applicant for the purpose of the United States of
; APPLICANT: America only)
; APPLICANT: Zurita, Amado J.(applicant for the purpose of the United States of Ame
; APPLICANT: only)
; TITLE OF INVENTION: Compositions and Methods of Use of Targeting Peptides for Diag
; TITLE OF INVENTION: Therapy of Human Cancer
; FILE REFERENCE: 005774.P010PCT
; CURRENT APPLICATION NUMBER: PCT/US02/34987
; CURRENT FILING DATE: 2002-10-30
; PRIOR APPLICATION NUMBER: PCT/US02/27836
; PRIOR FILING DATE: 2001-08-30
; NUMBER OF SEQ ID NOS: 132
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 70
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: Synthetic Peptide
PCT-US02-34987-70

Query Match 100.0%; Score 65; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.8e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDCRGDCFC 9
|||||||||
Db 1 CDCRGDCFC 9

RESULT 2
US-10-032-221B-35
; Sequence 35, Application US/10032221B
; GENERAL INFORMATION:
; APPLICANT: Kalluri, Raghuram
; TITLE OF INVENTION: ANTI-ANGIOGENIC PROTEINS AND FRAGMENTS AND METHODS OF USE THER
; FILE REFERENCE: 2312/2082B (formerly 1440.1027-016)

```
;  CURRENT APPLICATION NUMBER: US/10/032,221B
;  CURRENT FILING DATE:  2001-12-21
;  PRIOR APPLICATION NUMBER: PCT/US01/00565
;  PRIOR FILING DATE: 2001-01-08
;  PRIOR APPLICATION NUMBER: US 09/625,191
;  PRIOR FILING DATE: 2000-07-21
;  PRIOR APPLICATION NUMBER: US 09/543,371
;  PRIOR FILING DATE: 2000-04-04
;  PRIOR APPLICATION NUMBER: US 09/479,118
;  PRIOR FILING DATE: 2000-01-07
;  PRIOR APPLICATION NUMBER: US 09/335,224
;  PRIOR FILING DATE: 1999-06-17
;  PRIOR APPLICATION NUMBER: US 60/126,175
;  PRIOR FILING DATE: 1999-03-25
;  PRIOR APPLICATION NUMBER: US 60/089,689
;  PRIOR FILING DATE: 1998-06-17
;  NUMBER OF SEQ ID NOS: 58
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 35
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic blocking peptide
US-10-032-221B-35

  Query Match           100.0%;  Score 65;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.8e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 3
US-09-946-893B-9
; Sequence 9, Application US/09946893B
; GENERAL INFORMATION:
;  APPLICANT: Cao, Yihai
;  TITLE OF INVENTION: Materials and methods relating to endothelial cell growth
;  TITLE OF INVENTION:  inhibitors
;  FILE REFERENCE: Mewburn
;  CURRENT APPLICATION NUMBER: US/09/946,893B
;  CURRENT FILING DATE:  2002-10-17
;  PRIOR APPLICATION NUMBER: US 60/230,893
;  PRIOR FILING DATE: 2000-09-05
;  NUMBER OF SEQ ID NOS: 11
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Tumor
;   OTHER INFORMATION: targeting signal
US-09-946-893B-9

  Query Match           70.0%;  Score 45.5;  DB 5;  Length 8;
  Best Local Similarity  88.9%;  Pred. No. 1.8e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy      1 CDCRGDCFC 9
          || ||||||
Db      1 CD-RGDCFC 8


RESULT 4
US-10-131-346-29
; Sequence 29, Application US/10131346
; GENERAL INFORMATION:
;  APPLICANT: Cyr, John E.
;  TITLE OF INVENTION: STABILIZATION OF RADIOPHARMACEUTICAL COMPOSITIONS
;  TITLE OF INVENTION:  USING HYDROPHILIC 6-HYDROXY CHROMANS
;  FILE REFERENCE: 09744-017001
;  CURRENT APPLICATION NUMBER: US/10/131,346
;  CURRENT FILING DATE:  2002-04-24
;  PRIOR APPLICATION NUMBER: US 09/695,360
;  PRIOR FILING DATE: 2000-10-24
;  PRIOR APPLICATION NUMBER: PCT/US01/50423
;  PRIOR FILING DATE: 2001-10-24
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 29
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic construct
US-10-131-346-29

  Query Match           50.8%;  Score 33;  DB 6;  Length 7;
  Best Local Similarity  71.4%;  Pred. No. 1.8e+05;
  Matches    5;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 CDCRGDC 7
          |: ||||
Db      1 CNPRGDC 7


RESULT 5
US-10-131-546-29
; Sequence 29, Application US/10131546
; GENERAL INFORMATION:
;  APPLICANT: Cyr, John E.
;  APPLICANT:  Pearson, Daniel A.
;  TITLE OF INVENTION: STABILIZATION OF RADIOPHARMACEUTICAL COMPOSITIONS
;  TITLE OF INVENTION:  USING HYDROPHILIC THIOETHERS AND HYDROPHILIC 6-HYDROXY
;  TITLE OF INVENTION:  CHROMANS
;  FILE REFERENCE: 09744-018001
;  CURRENT APPLICATION NUMBER: US/10/131,546
;  CURRENT FILING DATE:  2002-04-24
;  PRIOR APPLICATION NUMBER: US 09/695,494
;  PRIOR FILING DATE: 2000-10-24
;  PRIOR APPLICATION NUMBER: PCT/US01/50423
;  PRIOR FILING DATE: 2001-10-24
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 29
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic construct
US-10-131-546-29

  Query Match           50.8%;  Score 33;  DB 6;  Length 7;
  Best Local Similarity  71.4%;  Pred. No. 1.8e+05;
  Matches    5;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 CDCRGDC 7
          |: ||||
Db      1 CNPRGDC 7


RESULT 6
US-09-813-484-19
; Sequence 19, Application US/09813484
; GENERAL INFORMATION:
;  APPLICANT: Unger, Evan C.
;  TITLE OF INVENTION: Novel Methods Of Ultrasound Treatment Using Gas Or Gaseous Pre
;  TITLE OF INVENTION:  Filled Compositions
;  FILE REFERENCE: UNGR1600
;  CURRENT APPLICATION NUMBER: US/09/813,484
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: 08/929,847
```

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;  PRIOR FILING DATE: 1997-09-15
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 19
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Completely synthetic sequence
US-09-813-484-19

  Query Match            47.7%;  Score 31;  DB 5;  Length 8;
  Best Local Similarity  83.3%;  Pred. No. 1.8e+05;
  Matches    5;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       3 CRGDCF 8
           |||| |
Db       1 CRGDMF 6


RESULT 7
US-10-062-109A-31
; Sequence 31, Application US/10062109A
; GENERAL INFORMATION:
;  APPLICANT: Agensys
;  APPLICANT:  Challita-Eid, Pia M.
;  APPLICANT:  Raitano, Arthur B.
;  APPLICANT:  Faris, Mary
;  APPLICANT:  Hubert, Rene S.
;  APPLICANT:  Morrison, Karen Jane Meyrick
;  APPLICANT:  Jakobovits, Aya
;  TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
;  TITLE OF INVENTION:  Entitled 161P2F10B Useful in Treatment and Detection of
;  TITLE OF INVENTION:  Cancer
;  FILE REFERENCE: 51158-20062.01
;  CURRENT APPLICATION NUMBER: US/10/062,109A
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: US 10/005,480
;  PRIOR FILING DATE: 2001-11-07
;  NUMBER OF SEQ ID NOS: 765
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 31
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-062-109A-31

  Query Match            46.2%;  Score 30;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       6 DCFC 9
           ||||
Db       3 DCFC 6


RESULT 8
US-10-062-109A-115
; Sequence 115, Application US/10062109A
; GENERAL INFORMATION:
;  APPLICANT: Agensys
;  APPLICANT:  Challita-Eid, Pia M.
;  APPLICANT:  Raitano, Arthur B.
;  APPLICANT:  Faris, Mary
;  APPLICANT:  Hubert, Rene S.
;  APPLICANT:  Morrison, Karen Jane Meyrick
;  APPLICANT:  Jakobovits, Aya
;  TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
;  TITLE OF INVENTION:  Entitled 161P2F10B Useful in Treatment and Detection of
;  TITLE OF INVENTION:  Cancer
;  FILE REFERENCE: 51158-20062.01
;  CURRENT APPLICATION NUMBER: US/10/062,109A
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: US 10/005,480
;  PRIOR FILING DATE: 2001-11-07
;  NUMBER OF SEQ ID NOS: 765
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 115
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-062-109A-115

  Query Match            46.2%;  Score 30;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       6 DCFC 9
           ||||
Db       3 DCFC 6


RESULT 9
US-10-062-109A-698
; Sequence 698, Application US/10062109A
; GENERAL INFORMATION:
;  APPLICANT: Agensys
;  APPLICANT:  Challita-Eid, Pia M.
;  APPLICANT:  Raitano, Arthur B.
;  APPLICANT:  Faris, Mary
;  APPLICANT:  Hubert, Rene S.
;  APPLICANT:  Morrison, Karen Jane Meyrick
;  APPLICANT:  Jakobovits, Aya
;  TITLE OF INVENTION: Nucleic Acid and Corresponding Protein
;  TITLE OF INVENTION:  Entitled 161P2F10B Useful in Treatment and Detection of
;  TITLE OF INVENTION:  Cancer
;  FILE REFERENCE: 51158-20062.01
;  CURRENT APPLICATION NUMBER: US/10/062,109A
;  CURRENT FILING DATE:  2002-01-31
;  PRIOR APPLICATION NUMBER: US 10/005,480
;  PRIOR FILING DATE: 2001-11-07
;  NUMBER OF SEQ ID NOS: 765
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 698
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-062-109A-698

  Query Match            46.2%;  Score 30;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       6 DCFC 9
           ||||
Db       3 DCFC 6


RESULT 10
US-09-813-484-24
; Sequence 24, Application US/09813484
; GENERAL INFORMATION:
;  APPLICANT: Unger, Evan C.
;  TITLE OF INVENTION: Novel Methods Of Ultrasound Treatment Using Gas Or Gaseous Pre
;  TITLE OF INVENTION:  Filled Compositions
;  FILE REFERENCE: UNGR1600
;  CURRENT APPLICATION NUMBER: US/09/813,484
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: 08/929,847
;  PRIOR FILING DATE: 1997-09-15
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 24
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
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;   FEATURE:
;   OTHER INFORMATION: Completely synthetic sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)..(2)
;   OTHER INFORMATION: N-methyl linkage
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: Xaa is penicillamine
US-09-813-484-24

  Query Match             40.0%;  Score 26;  DB 5;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      3 CRGD 6
          ||||
Db      1 CRGD 4


RESULT 11
US-09-813-484-20
; Sequence 20, Application US/09813484
; GENERAL INFORMATION:
;  APPLICANT: Unger, Evan C.
;  TITLE OF INVENTION: Novel Methods Of Ultrasound Treatment Using Gas Or Gaseous Precur
;  TITLE OF INVENTION:  Filled Compositions
;  FILE REFERENCE: UNGR1600
;  CURRENT APPLICATION NUMBER: US/09/813,484
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: 08/929,847
;  PRIOR FILING DATE: 1997-09-15
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 20
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Completely synthetic sequence
US-09-813-484-20

  Query Match             40.0%;  Score 26;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      3 CRGD 6
          ||||
Db      1 CRGD 4


RESULT 12
US-09-813-484-21
; Sequence 21, Application US/09813484
; GENERAL INFORMATION:
;  APPLICANT: Unger, Evan C.
;  TITLE OF INVENTION: Novel Methods Of Ultrasound Treatment Using Gas Or Gaseous Precur
;  TITLE OF INVENTION:  Filled Compositions
;  FILE REFERENCE: UNGR1600
;  CURRENT APPLICATION NUMBER: US/09/813,484
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: 08/929,847
;  PRIOR FILING DATE: 1997-09-15
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 21
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Completely synthetic sequence
US-09-813-484-21

  Query Match             40.0%;  Score 26;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      3 CRGD 6
          ||||
Db      1 CRGD 4


RESULT 13
US-09-813-484-23
; Sequence 23, Application US/09813484
; GENERAL INFORMATION:
;  APPLICANT: Unger, Evan C.
;  TITLE OF INVENTION: Novel Methods Of Ultrasound Treatment Using Gas Or Gaseous Pre
;  TITLE OF INVENTION:  Filled Compositions
;  FILE REFERENCE: UNGR1600
;  CURRENT APPLICATION NUMBER: US/09/813,484
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: 08/929,847
;  PRIOR FILING DATE: 1997-09-15
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 23
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Completely synthetic sequence
US-09-813-484-23

  Query Match             40.0%;  Score 26;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      4 RGDC 7
          ||||
Db      5 RGDC 8


RESULT 14
PCT-US02-33340-1
; Sequence 1, Application PC/TUS0233340
; GENERAL INFORMATION:
;  APPLICANT: Epix Medical, Inc.
;  TITLE OF INVENTION: Detection and Treatment of Intravascular
;  TITLE OF INVENTION:  Lesions
;  FILE REFERENCE: 13498-007WO1
;  CURRENT APPLICATION NUMBER: PCT/US02/33340
;  CURRENT FILING DATE:  2002-10-16
;  PRIOR APPLICATION NUMBER: 60/330,156
;  PRIOR FILING DATE: 2001-10-16
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Fibrin binding moiety
PCT-US02-33340-1

  Query Match             38.5%;  Score 25;  DB 1;  Length 7;
  Best Local Similarity   57.1%;  Pred. No. 1.8e+05;
  Matches    4;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      1 CDCRGDC 7
          ||  | |
Db      1 CDYYGTC 7


RESULT 15
```

US-09-776-268A-5
; Sequence 5, Application US/09776268A
; GENERAL INFORMATION:
; APPLICANT: KIM, Doo-Sik
; APPLICANT: CHUNG, Kwang Hoe
; APPLICANT: KANG, In-Cheol
; TITLE OF INVENTION: ANTI-TUMOR AGENT COMPRISING SALMOSIN AS AN ACTIVE INGREDIENT
; FILE REFERENCE: 0136/1F733-US1
; CURRENT APPLICATION NUMBER: US/09/776,268A
; CURRENT FILING DATE: 2002-02-02
; PRIOR APPLICATION NUMBER: US 09/335,088
; PRIOR FILING DATE: 1999-06-17
; PRIOR APPLICATION NUMBER: KR 99-20579
; PRIOR FILING DATE: 1999-06-04
; PRIOR APPLICATION NUMBER: KR 98-23778
; PRIOR FILING DATE: 1998-06-23
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Agkistrodon halys brevicaudus
US-09-776-268A-5

Query Match 36.9%; Score 24; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CDC 3
|||
Db 3 CDC 5

Search completed: December 3, 2002, 08:25:17
Job time : 14 secs

GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: December 3, 2002, 08:20:28 ; Search time 14 Seconds
(without alignments)
18.915 Million cell updates/sec

Title: US-09-734-628-1
Perfect score: 65
Sequence: 1 CDCRGDCFC 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

[redacted] number of hits satisfying chosen parameters: 66399

Minimum DB seq length: 0
Maximum DB seq length: 9

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
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4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	65	100.0	9	2	US-08-701-124-3	Sequence 3, Appli
2	65	100.0	9	2	US-08-286-861-16	Sequence 16, Appl
3	65	100.0	9	3	US-09-026-633-1	Sequence 1, Appli
4	65	100.0	9	3	US-09-130-225-3	Sequence 3, Appli
5	65	100.0	9	4	US-09-124-671-33	Sequence 33, Appl
6	65	100.0	9	4	US-09-258-754-211	Sequence 211, App
7	65	100.0	9	4	US-09-139-802-1	Sequence 1, Appli
8	65	100.0	9	4	US-09-042-107-211	Sequence 211, App
9	65	100.0	9	4	US-09-320-424-20	Sequence 20, Appl
10	65	100.0	9	4	US-09-426-680-12	Sequence 12, Appl
11	65	100.0	9	4	US-09-455-061-3	Sequence 3, Appli
12	65	100.0	9	4	US-09-174-943-8	Sequence 8, Appli
13	65	100.0	9	4	US-09-315-127-18	Sequence 18, Appl
14	59	90.8	9	2	US-08-286-861-17	Sequence 17, Appl
15	56	86.2	8	3	US-09-026-633-4	Sequence 4, Appli
16	51	78.5	9	2	US-08-701-124-4	Sequence 4, Appli
17	51	78.5	9	2	US-08-286-861-15	Sequence 15, Appl
18	51	78.5	9	3	US-09-130-225-4	Sequence 4, Appli
19	51	78.5	9	4	US-09-455-061-4	Sequence 4, Appli
20	49	75.4	9	2	US-08-286-861-18	Sequence 18, Appl
21	44	67.7	7	4	US-09-426-680-11	Sequence 11, Appl
22	40	61.5	8	1	US-08-421-702A-22	Sequence 22, Appl
23	40	61.5	8	1	US-08-303-052A-22	Sequence 22, Appl
24	40	61.5	8	1	US-08-421-696A-22	Sequence 22, Appl
25	40	61.5	8	1	US-08-421-697A-22	Sequence 22, Appl
26	40	61.5	8	1	US-08-421-698A-22	Sequence 22, Appl
27	40	61.5	8	2	US-08-421-695A-22	Sequence 22, Appl
28	40	61.5	8	5	PCT-US95-04741-22	Sequence 22, Appl
29	38	58.5	7	2	US-08-286-861-14	Sequence 14, Appl
30	35	53.8	5	1	US-08-212-186A-10	Sequence 10, Appl
31	35	53.8	5	1	US-08-425-238-8	Sequence 8, Appli
32	35	53.8	5	2	US-08-625-695A-10	Sequence 10, Appl
33	35	53.8	5	2	US-08-335-832-42	Sequence 42, Appl
34	35	53.8	5	2	US-08-753-781-35	Sequence 35, Appl
35	35	53.8	5	2	US-08-286-861-37	Sequence 37, Appl
36	35	53.8	5	3	US-09-141-127-15	Sequence 15, Appl
37	35	53.8	5	4	US-08-924-002-10	Sequence 10, Appl
38	35	53.8	6	1	US-08-212-186A-1	Sequence 1, Appli
39	35	53.8	6	1	US-08-212-186A-26	Sequence 26, Appl
40	35	53.8	6	1	US-08-425-238-4	Sequence 4, Appli
41	35	53.8	6	2	US-08-625-695A-1	Sequence 1, Appli
42	35	53.8	6	2	US-08-625-695A-26	Sequence 26, Appl
43	35	53.8	6	2	US-08-286-861-7	Sequence 7, Appli
44	35	53.8	6	4	US-08-924-002-1	Sequence 1, Appli
45	35	53.8	6	4	US-08-924-002-26	Sequence 26, Appl

ALIGNMENTS

```
RESULT 1
US-08-701-124-3
; Sequence 3, Application US/08701124
; Patent No. 5846782
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/701,124
;      FILING DATE:  21-AUG-1996
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-701-124-3

  Query Match             100.0%;  Score 65;  DB 2;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CDCRGDCFC 9
           |||||||||
Db       1 CDCRGDCFC 9


RESULT 2
US-08-286-861-16
; Sequence 16, Application US/08286861
; Patent No. 5981478
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
```

```
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. 5981478el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell and Flores
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/286,861
;      FILING DATE:  04-AUG-1994
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 9992
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 535-9001
;      TELEFAX:  (619) 535-8949
;  INFORMATION FOR SEQ ID NO:  16:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-08-286-861-16

  Query Match           100.0%;  Score 65;  DB 2;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 3
US-09-026-633-1
; Sequence 1, Application US/09026633
; Patent No. 6025328
; GENERAL INFORMATION:
;  APPLICANT: McMorris, Trevor C.
;  APPLICANT: Kelner, Michael J.
;  TITLE OF INVENTION: Antitumor agents
;  FILE REFERENCE: 103.008US1
;  CURRENT APPLICATION NUMBER: US/09/026,633
;  CURRENT FILING DATE: 1998-02-20
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Amino acid sequence
US-09-026-633-1

  Query Match           100.0%;  Score 65;  DB 3;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 4
US-09-130-225-3
; Sequence 3, Application US/09130225
; Patent No. 6057155
; GENERAL INFORMATION:
;   APPLICANT:  Wickham, Thomas J.
;   APPLICANT:  Roelvink, Petrus W.
;   APPLICANT:  Kovesdi, Imre
;   TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;   TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;   NUMBER OF SEQUENCES:  80
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;     STREET:  Two Prudential Plaza - 49th Floor
;     CITY:  Chicago
;     STATE:  Illinois
;     COUNTRY:  USA
;     ZIP:  60601
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE:  Floppy disk
;     COMPUTER:  IBM PC compatible
;     OPERATING SYSTEM:  PC-DOS/MS-DOS
;     SOFTWARE:  PatentIn Release #1.0, Version #1.30
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER:  US/09/130,225
;     FILING DATE:
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER:  US 8-701124
;     FILING DATE:  21-AUG-1996
; INFORMATION FOR SEQ ID NO:  3:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH:  9 amino acids
;     TYPE:  amino acid
;     STRANDEDNESS:  single
;     TOPOLOGY:  linear
;   MOLECULE TYPE:  peptide
US-09-130-225-3

  Query Match           100.0%;  Score 65;  DB 3;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 5
US-09-124-671-33
; Sequence 33, Application US/09124671A
; Patent No. 6160088
; GENERAL INFORMATION:
;  APPLICANT: Rothman, James
;  APPLICANT: Mayhew, Mark
;  APPLICANT: Hoe, Mee
;  TITLE OF INVENTION: KDEL RECEPTOR INHIBITORS
;  FILE REFERENCE: 31488
;  CURRENT APPLICATION NUMBER: US/09/124,671A
;  CURRENT FILING DATE: 1998-07-29
;  NUMBER OF SEQ ID NOS: 42
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: alpha-five integrin binding motif
US-09-124-671-33

  Query Match           100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 2e+05;
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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
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RESULT 6
US-09-258-754-211
; Sequence 211, Application US/09258754
; Patent No. 6174687
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Pasqualini, Renata
; APPLICANT: Rajotte, Daniel
; TITLE OF INVENTION: Methods of Identifying Lung Homing Molecules Using
; TITLE OF INVENTION: Membrane Dipeptidase
; FILE REFERENCE: P-LJ 3443
; CURRENT APPLICATION NUMBER: US/09/258,754
; CURRENT FILING DATE: 1999-02-26
; EARLIER APPLICATION NUMBER: 09/042,107
; EARLIER FILING DATE: 1998-03-13
; NUMBER OF SEQ ID NOS: 452
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 211
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-258-754-211

Query Match 100.0%; Score 65; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 7
US-09-139-802-1
; Sequence 1, Application US/09139802
; Patent No. 6180084
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Pasqualini, Renata
; TITLE OF INVENTION: NGR Receptor and Methods of Identifying Tumor Homing
; TITLE OF INVENTION: Molecules That Home to Angiogenic Vasculature Using
; TITLE OF INVENTION: Same
; FILE REFERENCE: P-LJ 3203
; CURRENT APPLICATION NUMBER: US/09/139,802
; CURRENT FILING DATE: 1998-08-25
; EARLIER APPLICATION NUMBER: 08/926,914
; EARLIER FILING DATE: 1997-09-10
; EARLIER APPLICATION NUMBER: 08/710,067
; EARLIER FILING DATE: 1996-09-10
; NUMBER OF SEQ ID NOS: 226
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-139-802-1

Query Match 100.0%; Score 65; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 8
US-09-042-107-211
; Sequence 211, Application US/09042107
; Patent No. 6232287
; GENERAL INFORMATION:
; APPLICANT: Ruoslahti, Erkki
; APPLICANT: Pasqualini, Renata
; TITLE OF INVENTION: Molecules that Home to Various Selected Organs or
; TITLE OF INVENTION: Tissues
; FILE REFERENCE: P-LJ 2892
; CURRENT APPLICATION NUMBER: US/09/042,107
; CURRENT FILING DATE: 1998-03-13
; NUMBER OF SEQ ID NOS: 436
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 211
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-042-107-211

Query Match 100.0%; Score 65; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9
```

RESULT 9
US-09-320-424-20
; Sequence 20, Application US/09320424
; Patent No. 6284236
; GENERAL INFORMATION:
; APPLICANT: Wiley, Steven R.
; APPLICANT: Goodwin, Raymond G.
; TITLE OF INVENTION: Cytokine that Induces Apoptosis
; FILE REFERENCE: 2835-E
; CURRENT APPLICATION NUMBER: US/09/320,424
; CURRENT FILING DATE: 1999-05-26
; EARLIER APPLICATION NUMBER: 09/190,046
; EARLIER FILING DATE: 1998-11-10
; EARLIER APPLICATION NUMBER: 09/048,641
; EARLIER FILING DATE: 1998-03-26
; EARLIER APPLICATION NUMBER: 08/670,354
; EARLIER FILING DATE: 1996-06-25
; EARLIER APPLICATION NUMBER: 08/548,368
; EARLIER FILING DATE: 1995-11-01
; EARLIER APPLICATION NUMBER: 08/496,632
; EARLIER FILING DATE: 1995-06-29
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: artificial
; OTHER INFORMATION: peptide
US-09-320-424-20

Query Match 100.0%; Score 65; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 CDCRGDCFC 9
```

```
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 10
US-09-426-680-12
; Sequence 12, Application US/09426680
; Patent No. 6287857
; GENERAL INFORMATION:
;  APPLICANT: Catherine R. O'Riordan
;  APPLICANT: Samuel C. Wadsworth
;  TITLE OF INVENTION: Nucleic Acid Delivery Vehicles
;  FILE REFERENCE: GA0103USB2
;  CURRENT APPLICATION NUMBER: US/09/426,680
;  CURRENT FILING DATE: 1999-10-25
;  EARLIER APPLICATION NUMBER: PCT/US99/02680
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 12
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: human
;   FEATURE:
;   NAME/KEY: PEPTIDE
;   LOCATION: (0)...(0)
US-09-426-680-12

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 11
US-09-455-061-3
; Sequence 3, Application US/09455061
; Patent No. 6329190
;  GENERAL INFORMATION:
;    APPLICANT:  Wickham, Thomas J.
;    APPLICANT:  Roelvink, Petrus W.
;    APPLICANT:  Kovesdi, Imre
;    TITLE OF INVENTION:  TARGETING ADENOVIRUS WITH USE OF
;    TITLE OF INVENTION:  CONSTRAINED PEPTIDE MOTIFS
;    NUMBER OF SEQUENCES:  80
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Leydig, Voit & Mayer, Ltd.
;      STREET:  Two Prudential Plaza - 49th Floor
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60601
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/455,061
;      FILING DATE:  06-DEC-1999
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 9-130225
;      FILING DATE:  06-AUG-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 8-701124
;      FILING DATE:  21-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hefner, M. Daniel
;      REGISTRATION NUMBER:  41,826
;      REFERENCE/DOCKET NUMBER:  203128
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-455-061-3

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 12
US-09-174-943-8
; Sequence 8, Application US/09174943
; Patent No. 6420110
; GENERAL INFORMATION:
;  APPLICANT: GYURIS, JENO
;  APPLICANT: MORRIS, AARON J.
;  TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION: PEPTIDES
;  FILE REFERENCE: MIV-106.01
;  CURRENT APPLICATION NUMBER: US/09/174,943
;  CURRENT FILING DATE: 1998-10-19
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RGD motif
US-09-174-943-8

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 13
US-09-315-127-18
; Sequence 18, Application US/09315127
; Patent No. 6448390
; GENERAL INFORMATION:
;  APPLICANT: The University of Tennessee, c/o Richard Cox
;  TITLE OF INVENTION: Stable Envelope Proteins for Retroviral, Viral and
;  TITLE OF INVENTION: Liposome Vectors and Use in Gene and Drug Therapy
;  FILE REFERENCE: 44137-5023, U. of Tennessee
;  CURRENT APPLICATION NUMBER: US/09/315,127
;  CURRENT FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 18
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SEQ. ID NO.
;   OTHER INFORMATION: 14, alpha Vbeta3-binding peptide
US-09-315-127-18

  Query Match             100.0%;  Score 65;  DB 4;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy      1 CDCRGDCFC 9
          |||||||||
Db      1 CDCRGDCFC 9


RESULT 14
US-08-286-861-17
; Sequence 17, Application US/08286861
; Patent No. 5981478
;  GENERAL INFORMATION:
;    APPLICANT:  Ruoslahti, Erkki
;    APPLICANT:  Koivunen, Erkki
;    TITLE OF INVENTION:  No. 5981478el Integrin-Binding Peptides
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Campbell and Flores
;      STREET:  4370 La Jolla Village Drive, Suite 700
;      CITY:  San Diego
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  92122
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/286,861
;      FILING DATE:  04-AUG-1994
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/158,001
;      FILING DATE:  24-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Campbell, Cathryn
;      REGISTRATION NUMBER:  31,815
;      REFERENCE/DOCKET NUMBER:  P-LA 9992
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (619) 535-9001
;      TELEFAX:  (619) 535-8949
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  circular
US-08-286-861-17

  Query Match             90.8%;  Score 59;  DB 2;  Length 9;
  Best Local Similarity   88.9%;  Pred. No. 2e+05;
  Matches    8;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 CDCRGDCFC 9
          ||||||| |
Db      1 CDCRGDCLC 9


RESULT 15
US-09-026-633-4
; Sequence 4, Application US/09026633
; Patent No. 6025328
; GENERAL INFORMATION:
;  APPLICANT: McMorris, Trevor C.
;  APPLICANT: Kelner, Michael J.
;  TITLE OF INVENTION: Antitumor agents
;  FILE REFERENCE: 103.008US1
;  CURRENT APPLICATION NUMBER: US/09/026,633
;  CURRENT FILING DATE: 1998-02-20
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Amino acid sequence
US-09-026-633-4

  Query Match             86.2%;  Score 56;  DB 3;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 2e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 DCRGDCFC 9
          ||||||||
Db      1 DCRGDCFC 8


Search completed: December  3, 2002, 08:22:39
Job time : 15 secs
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